DVR user manual

(Version 5.1.0.0)

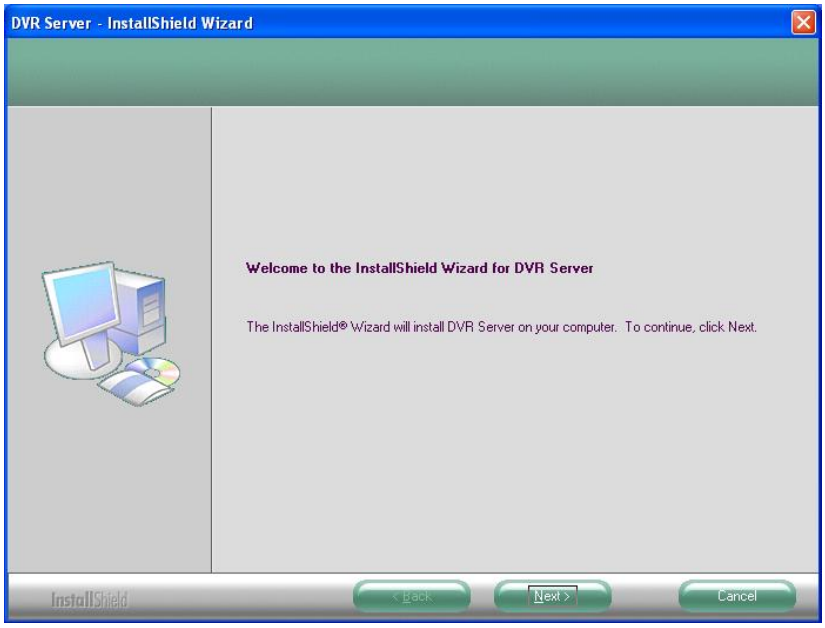
CHAPTER 1
HARDWARE Specification

1.1 Product Specification

Models	**4-30 /4-60 / 4-120 / 8-60 / 8-120 / 8-240 / 12-90 / 16-120 / 16-240 / 16-480, 24-180, 32-240**
Displaying Speed	30fps(NTSC), 25fps(PAL)/30, 25/60, 50/60, 50/120, 100/120, 100/240, 200/120, 100/240, 200/480, 400/480, 400/480, 400/240, 200
Recording Speed	30fps(NTSC), 25fps(PAL)/30, 25/60, 50/ 60, 50/120, 100/120, 100/240, 200/120, 100/240, 200/120, 100/240, 200/ 480, 400/ 240, 200
Video Inputs	4 / 16/ 4/16 / 4 / 8 / 8 / 16 / 16 / 16 / 16/ 16/ 32
Audio Inputs	1/ 1 / 2/ 2 / 4 / 4 / 8 / 4 / 8 / 4 / 8/ 16/ 8
Sensor Inputs	4 / 4/ 4/ 4 / 4 / 16 / 16 / 16 / 16 / 16 / 16 / 16/ 8
Alarm Outputs	2 / 2 / 2 / 2 / 4 / 8 / 8 / 8 / 8 / 8 / 8 / 8 /8
Video Resolution	640 X 480 , 640 X 240 , 320 X 240 (NTSC) / 768 X 576 , 768 X 288 , 384 X 288 (PAL)
Compression Type	MPEG-4
Supported Signal Types	NTSC, PAL
Supported Network	TCP/IP, PSTN
Supported Backup Devices	HDD, DVD/R, CD/RW, Network Driver, etc.
Supported PTZ Protocols	C&B Tech-CND100200&SMART, Changzhou Minking-Minking, CTNCom-HD0670, Dong Yang Unitech-DSC230, DRAGON-DRAGON, Dynacolor-TPD7720, Geosan-GRX1000, GOLDENEYE-GOLDENEYE, InterM-VRX2201, KALATEL-KTD312, KJK-KJK, LG-LPTA100L, PELCO D&P, SAMSUNG-SCC641&SDZ160R&SPD1600&SPX1000&SPT1000, SONY-EVID3031, Vicon-Survey&2000, ZITEC-ZITECH, etc.
Operating Systems	Windows XP, Windows 2000, Linux
Supported Languages	English, Spanish, Japanese, French, Traditional Chinese, Simplified Chinese, Portuguese, Hebrew, Polish, German, Finnish, Greek, Hungarian, Korean, etc.

CHAPTER 2
SOFTWARE INSTALLATION

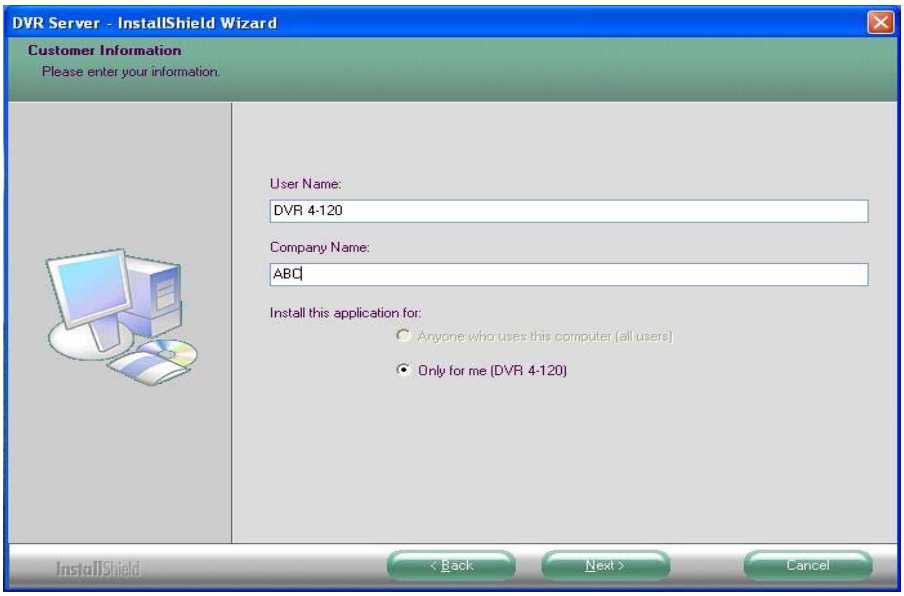
Steps: 1. Insert DVR CD. 2. A menu shows up and select the program to install.


DVR Server - InstallShield Wizard
Welcome to the InstallShield Wizard for DVR Server
The InstallShield® Wizard will install DVR Server on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

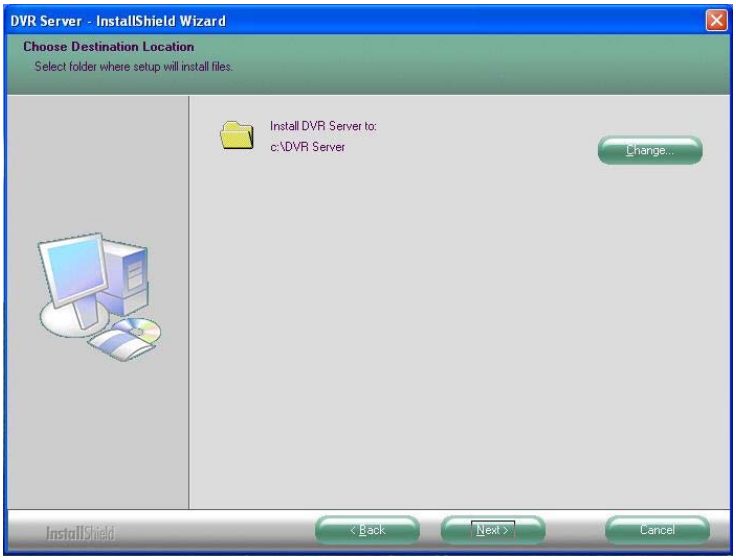
2.1 Automatic Installation

2.1.1 Click to install the DVR program

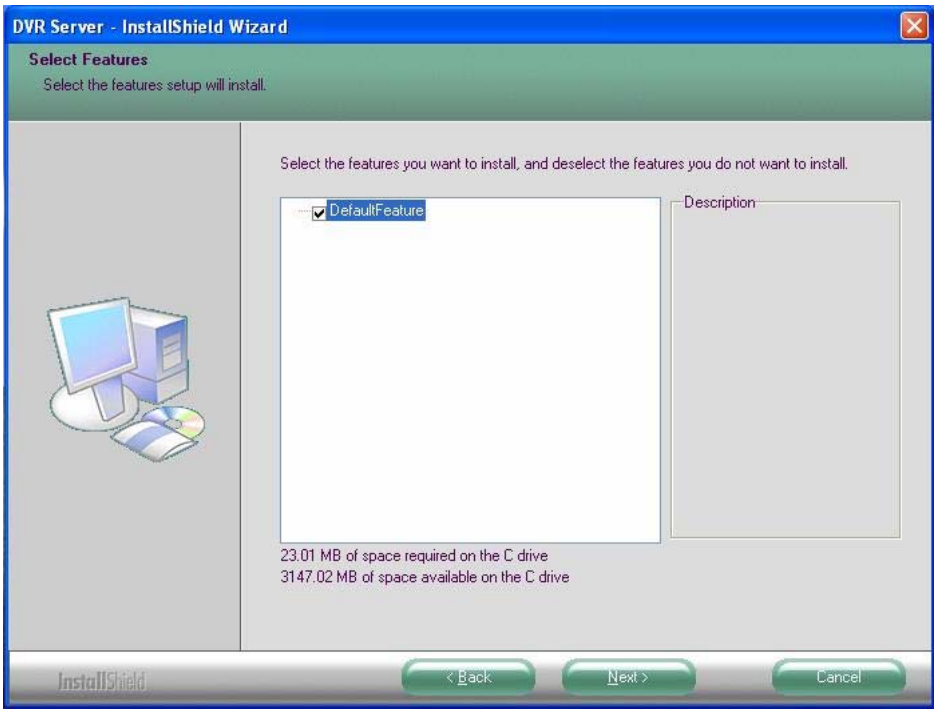
2.1.2 Installation Method Selection



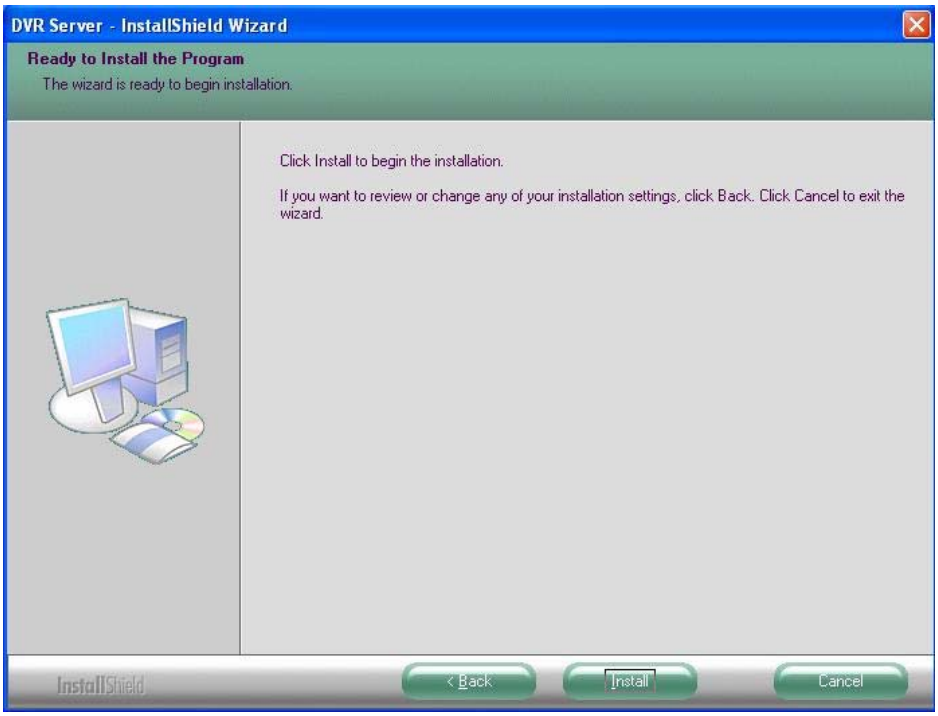
2.1.3 Choose Installation Directory

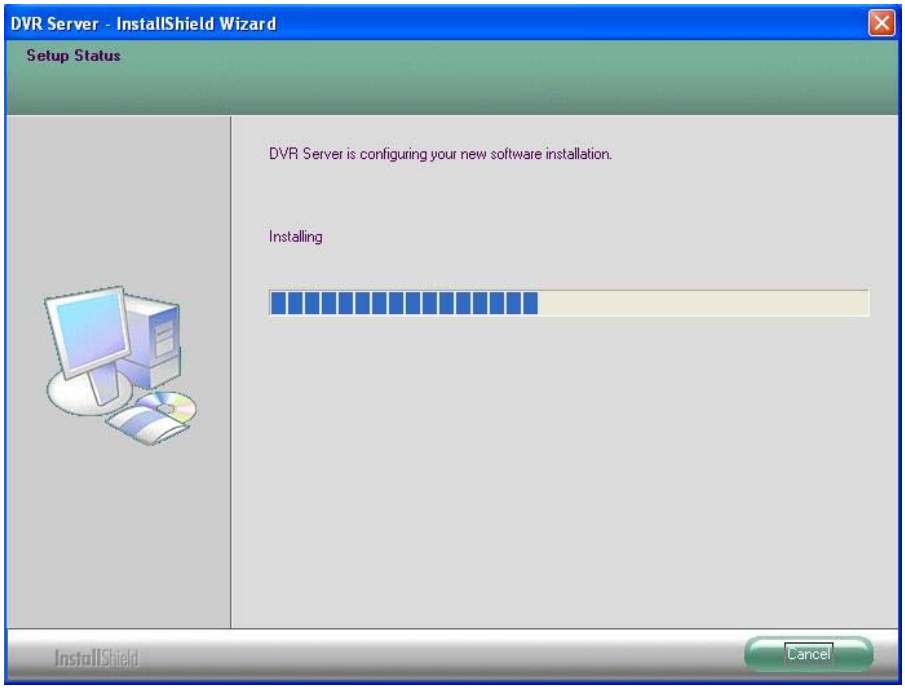


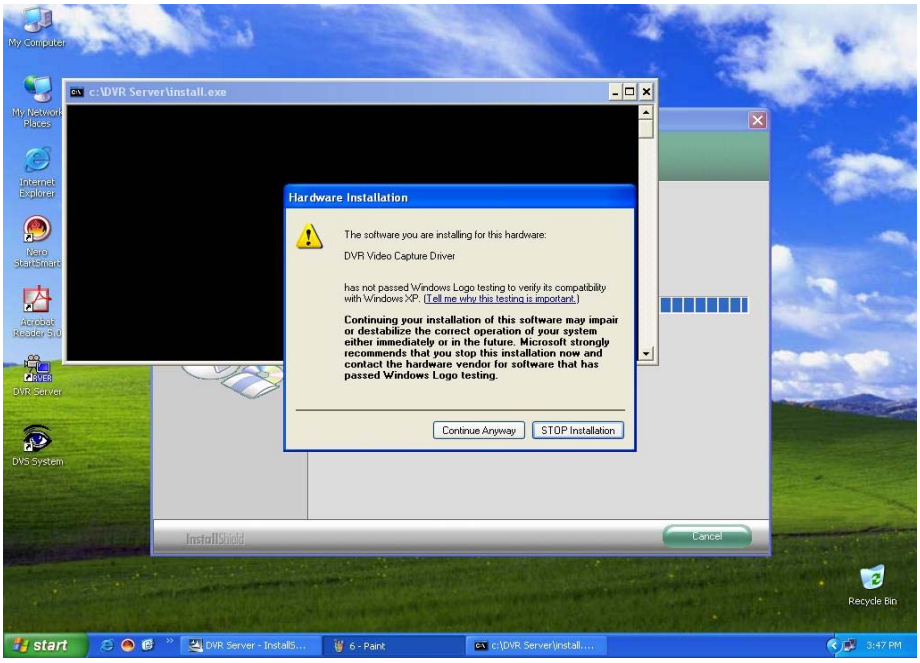
2.1.4 Select Features


DVR Server - InstallShield Wizard
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
DefaultFeature
Description
23.01 MB of space required on the C drive
3147.02 MB of space available on the C drive
InstallShield
< Back
Next >
Cancel

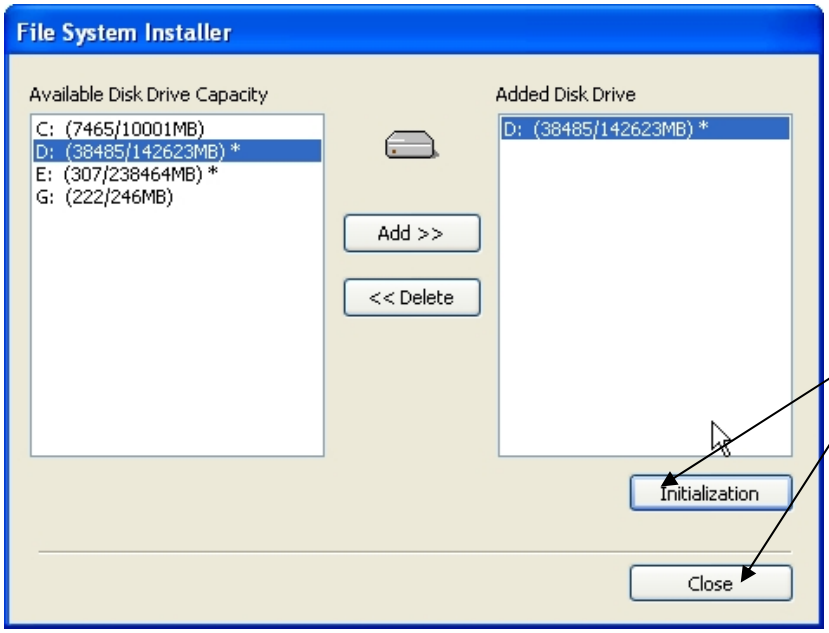
2.1.5 Begin Installation


DVR Server - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

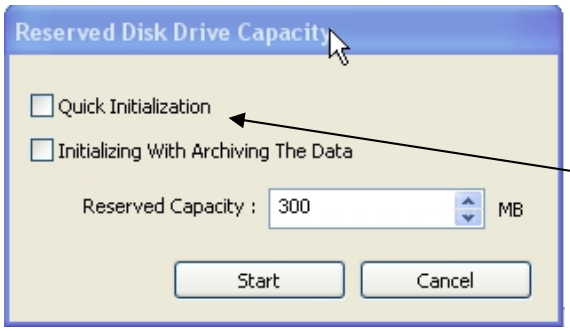

DVR Server - InstallShield Wizard
Setup Status
DVR Server is configuring your new software installation.
Installing
InstallShield
Cancel


My Computer
My Network Places
Internet Explorer
Nero StartSmart
Acrobat Reader 5.0
DVR Server
DVS System
c:\DVR Server\install.exe
Hardware Installation
The software you are installing for this hardware:
DVR Video Capture Driver
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
InstallShield
Cancel
Recycle Bin
start
DVR Server - InstallS...
6 - Paint
c:\DVR Server\install....
3:47 PM

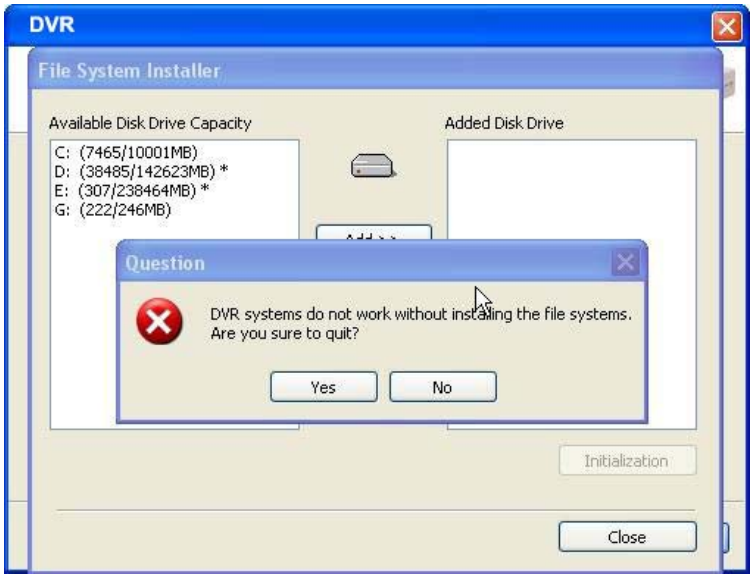
2.1.6 DVR File System Installation



Select the available drive(s) on the left hand side and click "Add" to put the selected drive(s) to the right hand side.
Then, click the button "Initialization" to prepare the drive(s) for video storage.

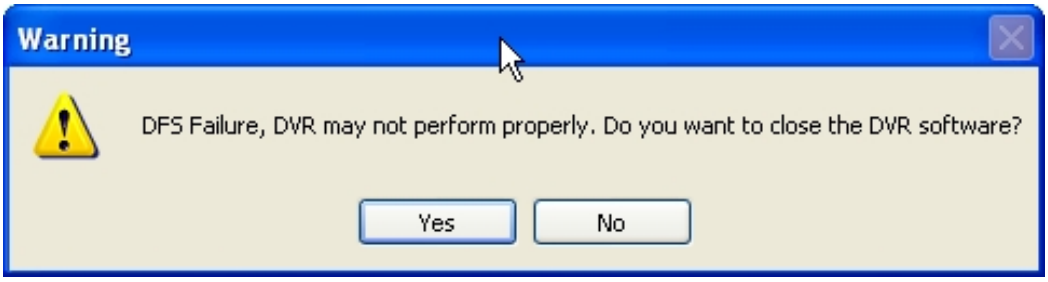


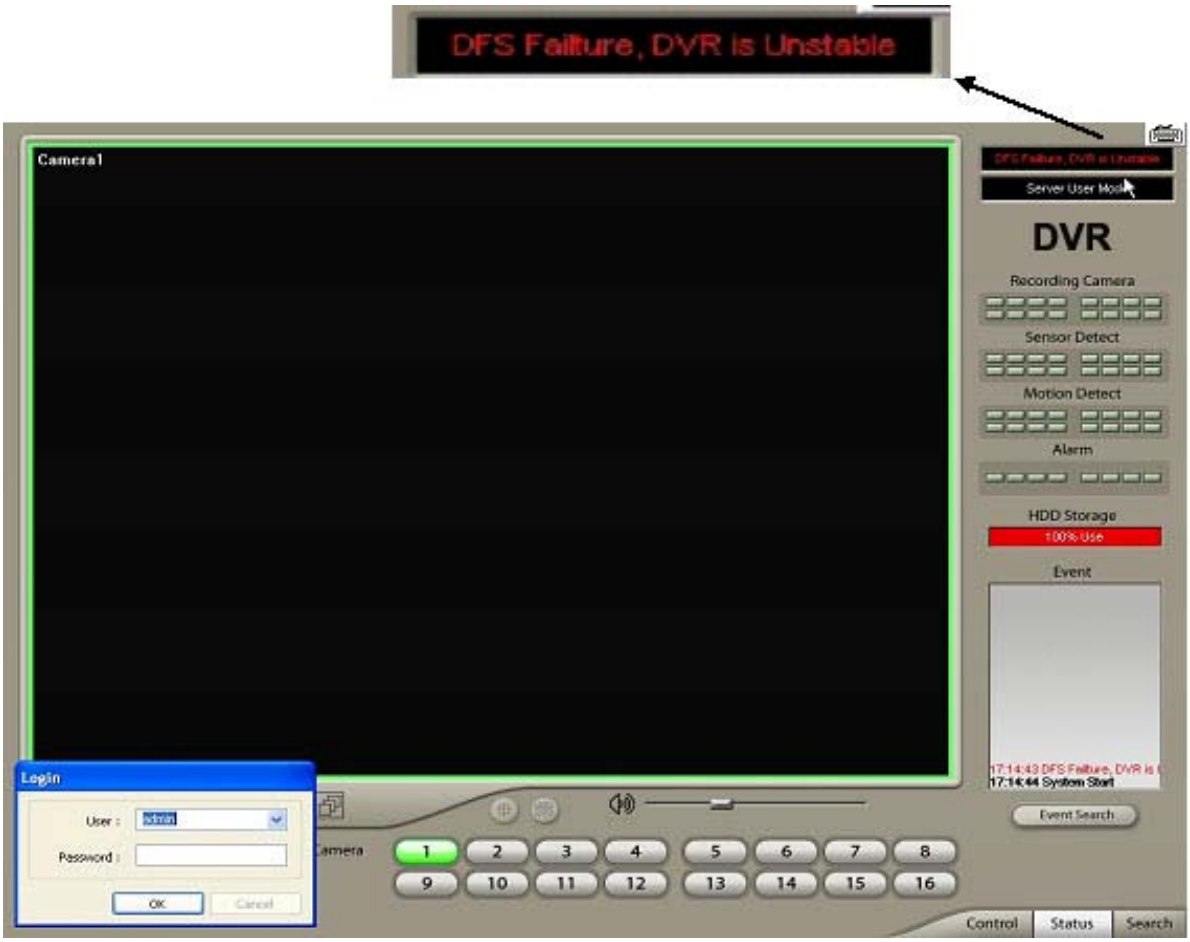
Selecting "Quick Initialization" will initialize the entire drive capacity added. Otherwise, put in desirable reserved capacity which is not for video storage. Note that the number can not exceed total capacity added.
Initializing With Archiving the Data: This is to increase DFS storage by taking additional space from the current "Reserved Capacity". Therefor new value for "Reserved Capacity" can not exceed the current one.
Minimum 300MB is recommended for DVR performance.



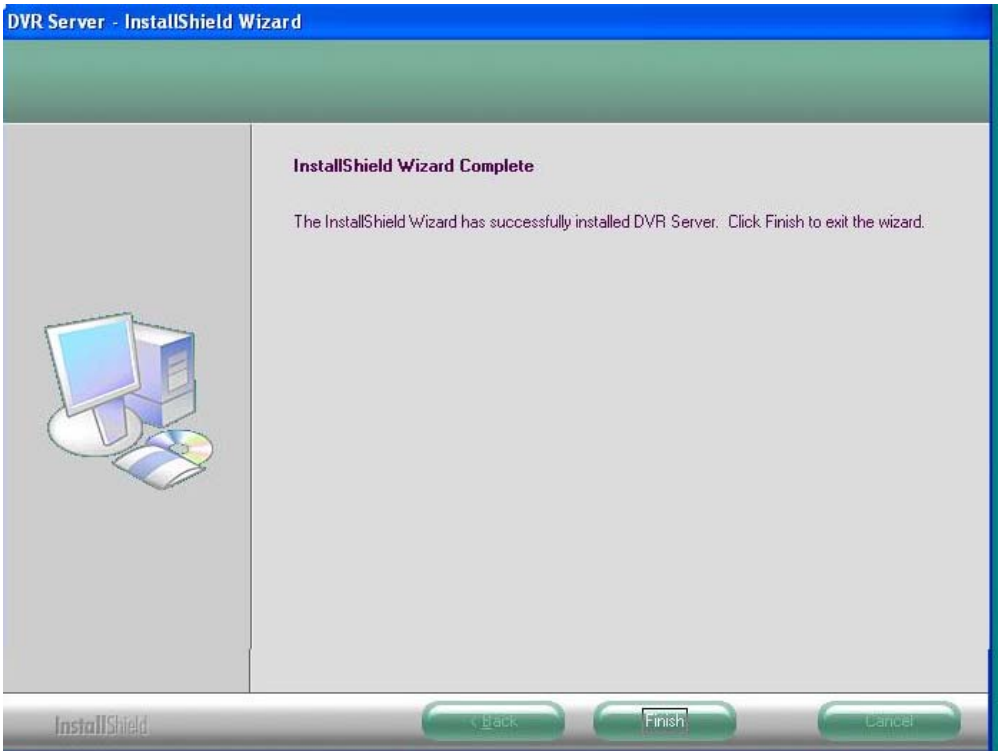
At least one of available drive should be added to the right hand side for video storage. Drive with asterisk means it has been initialized by the DVR program.

At least one of “available disk drive” must be added for data storage. Otherwise, the alert message will pop up.



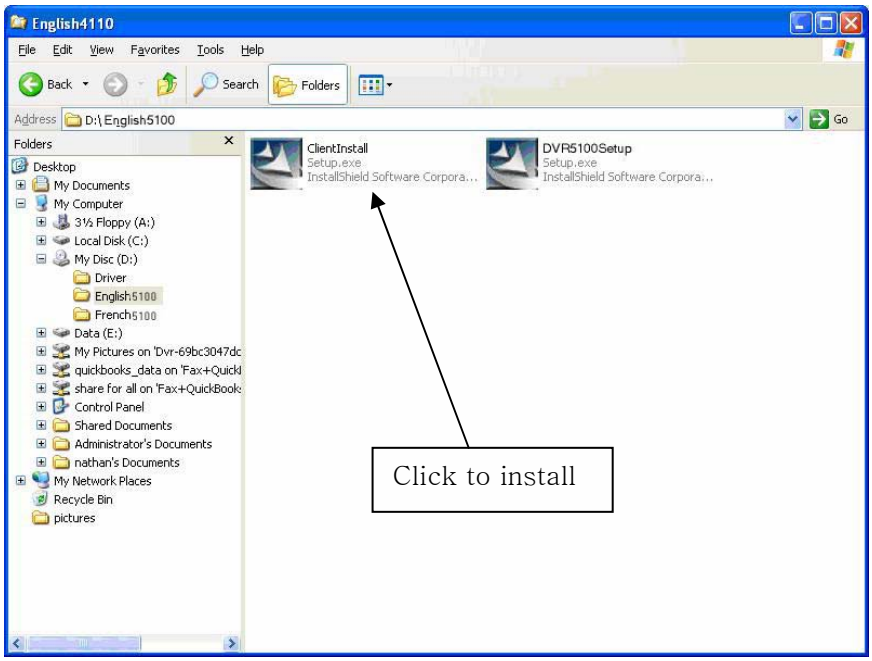


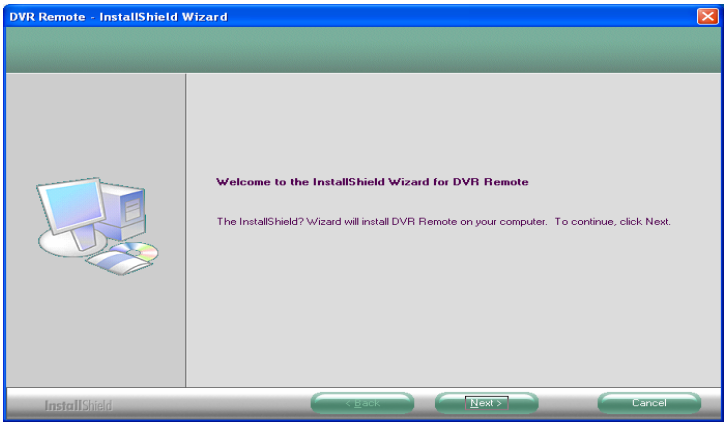
2.1.5 Completion

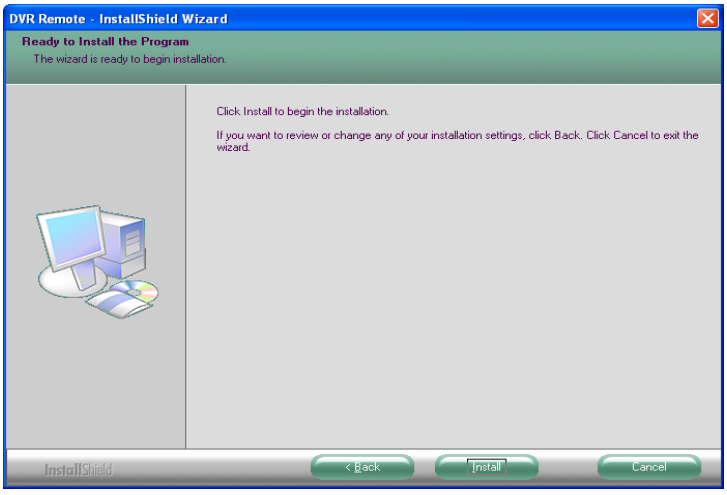


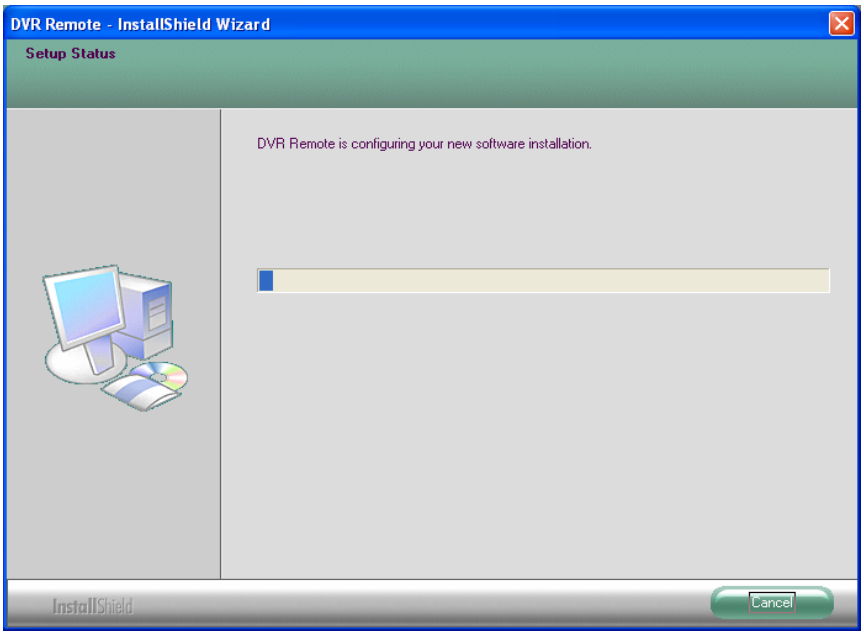
2.3 Remote Client Installation

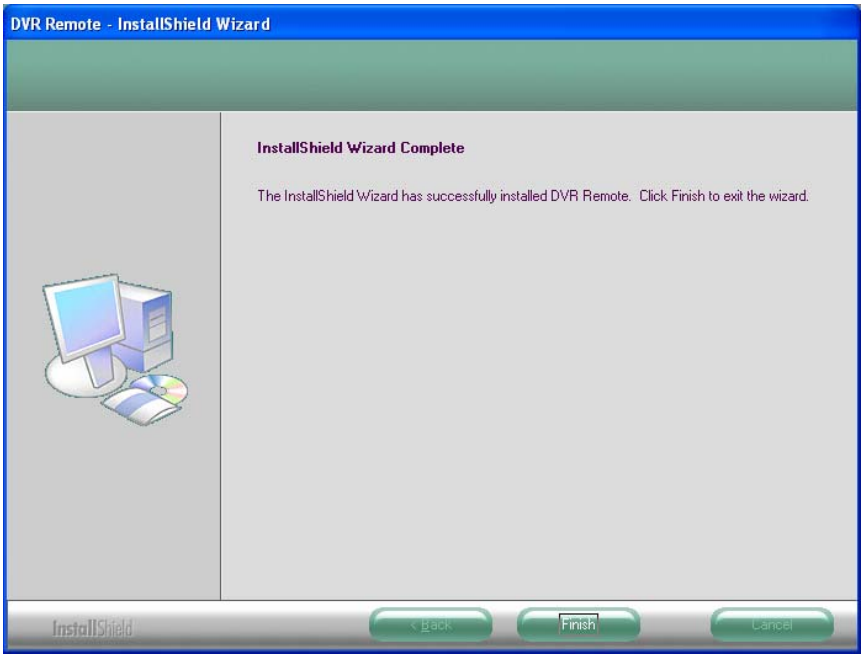
2.3.1 Using DVR installation CD




DVR Remote - InstallShield Wizard
Welcome to the InstallShield Wizard for DVR Remote
The InstallShield? Wizard will install DVR Remote on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

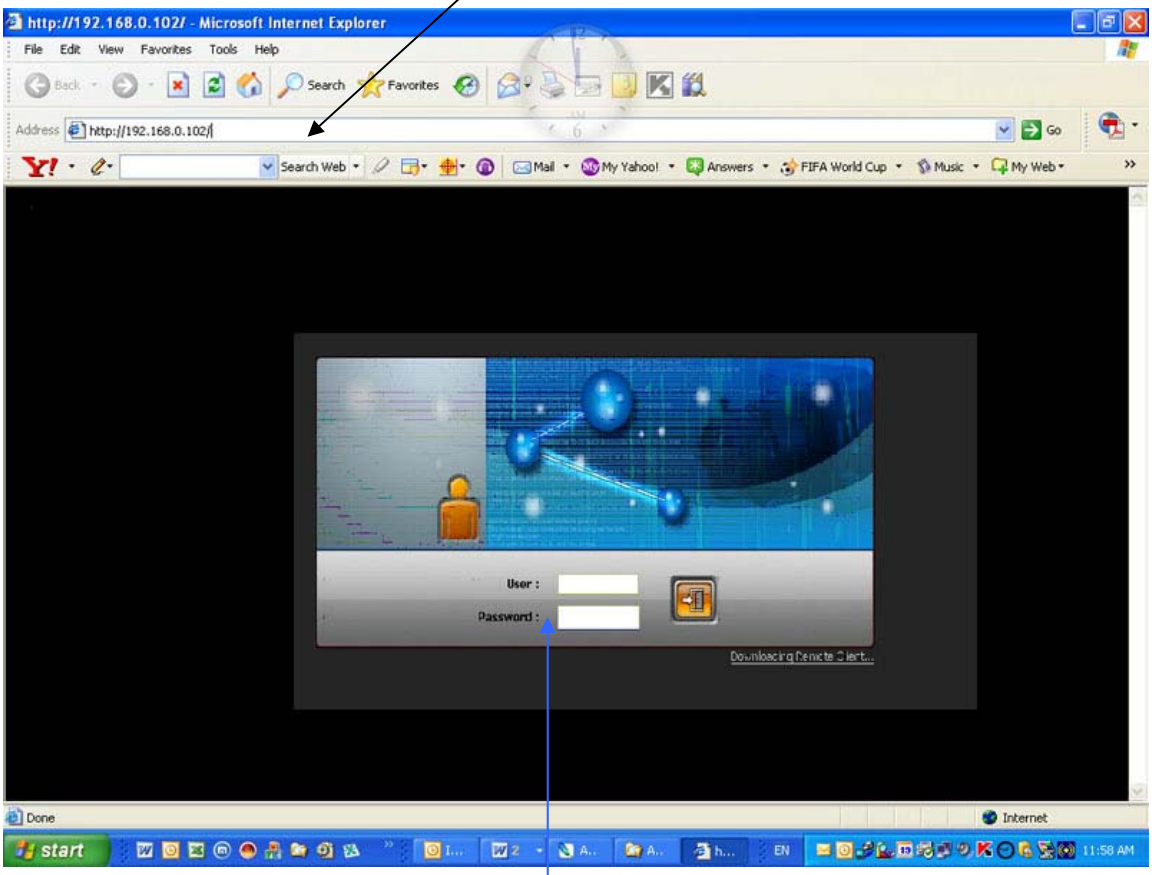

DVR Remote - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel


DVR Remote - InstallShield Wizard
Setup Status
DVR Remote is configuring your new software installation.
InstallShield
Cancel

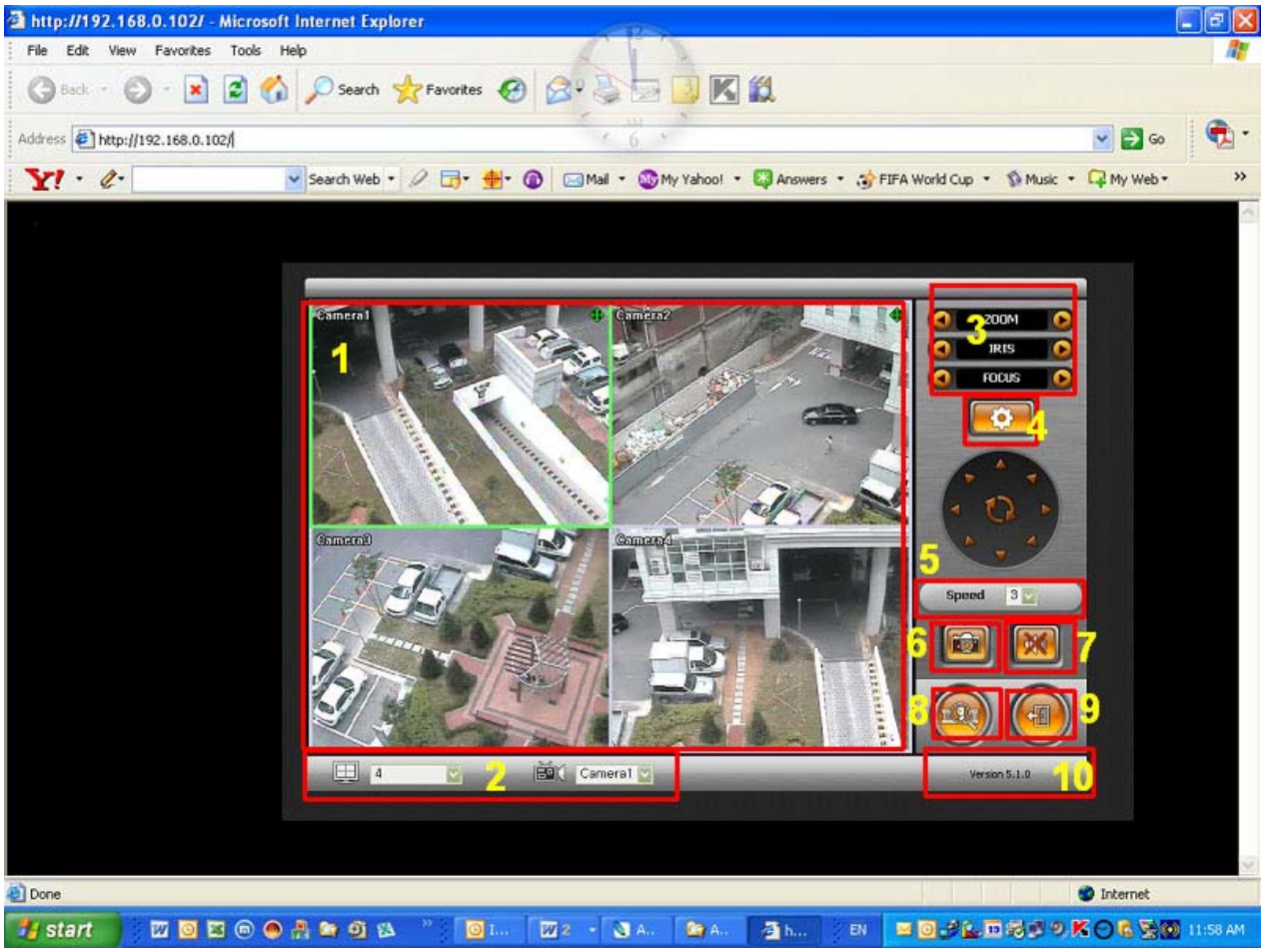

DVR Remote - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed DVR Remote. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

2.3.2 Using Web Browser

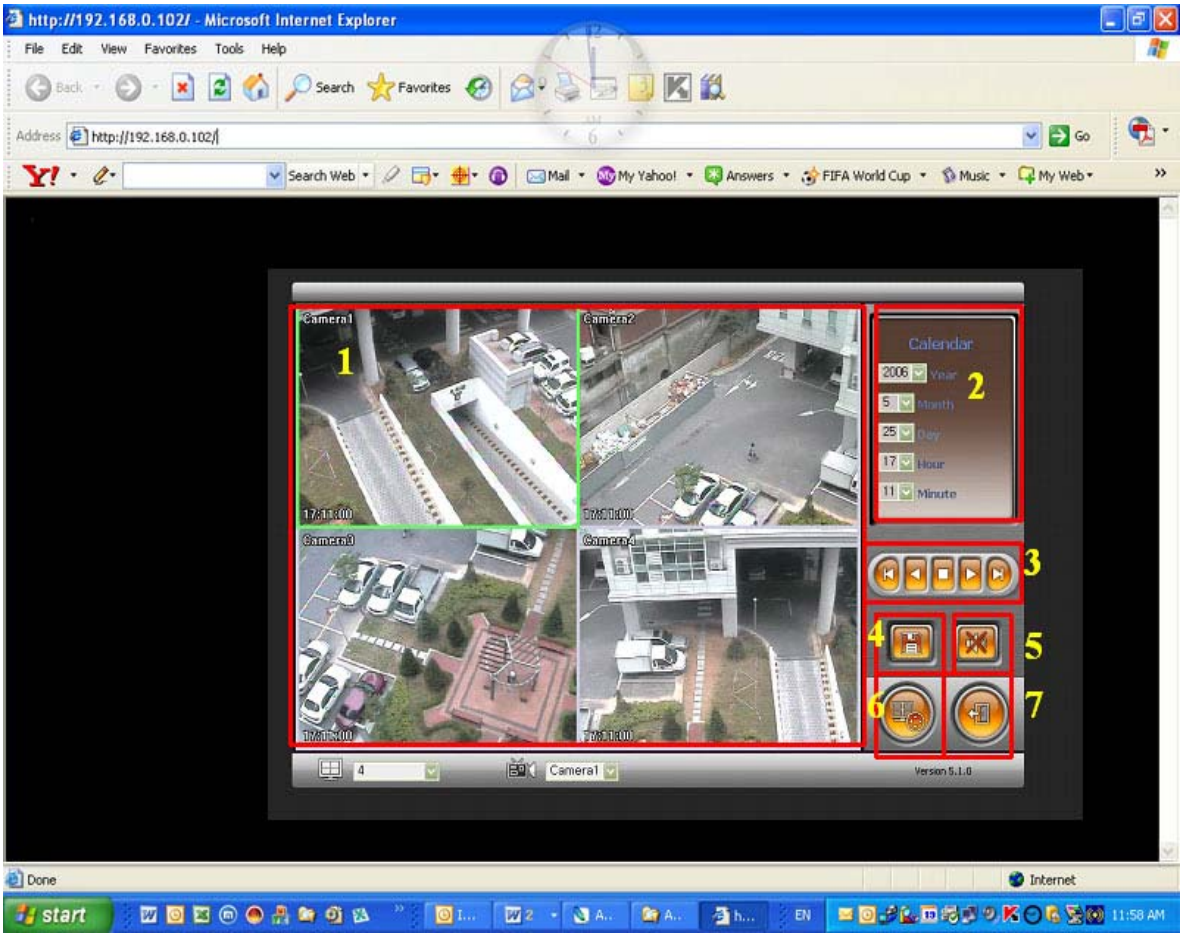
1. Type in the IP address of DVR server.



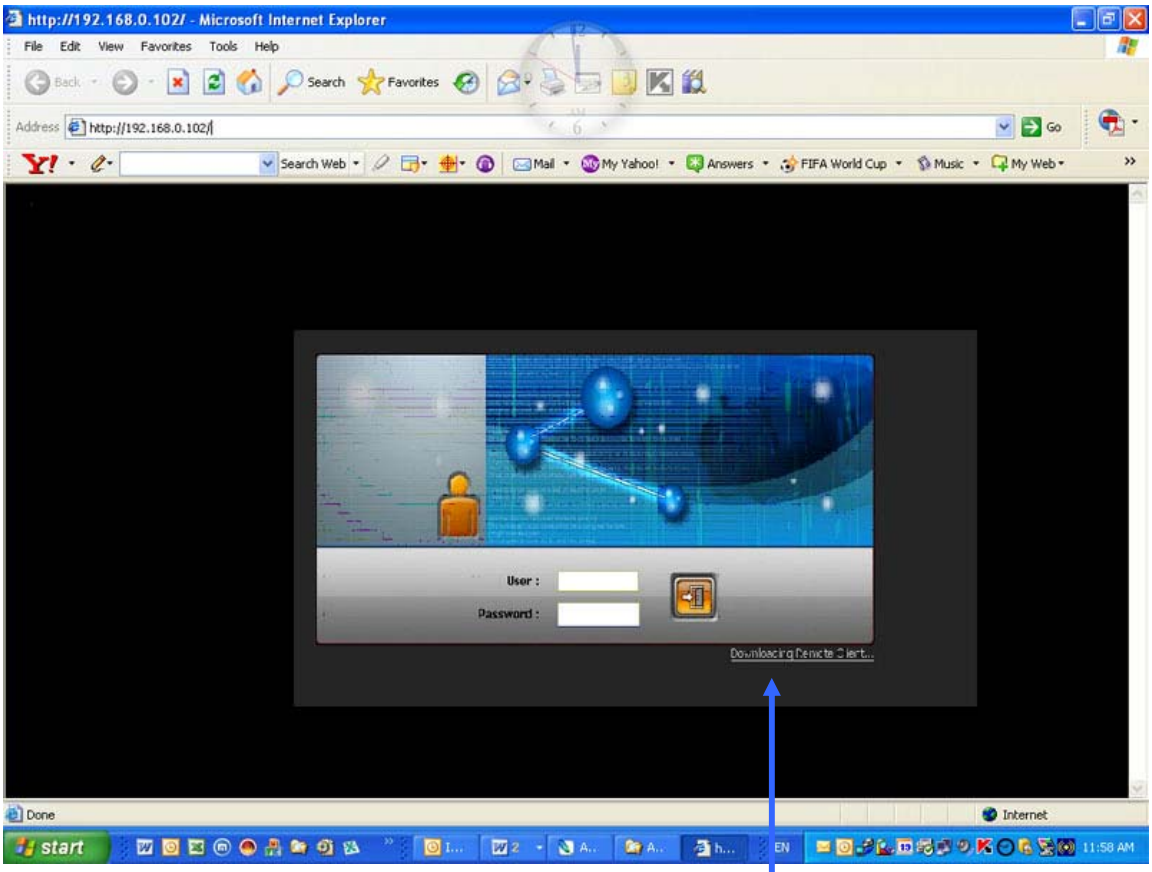
2. Log in first before downloading Remote Client Program.



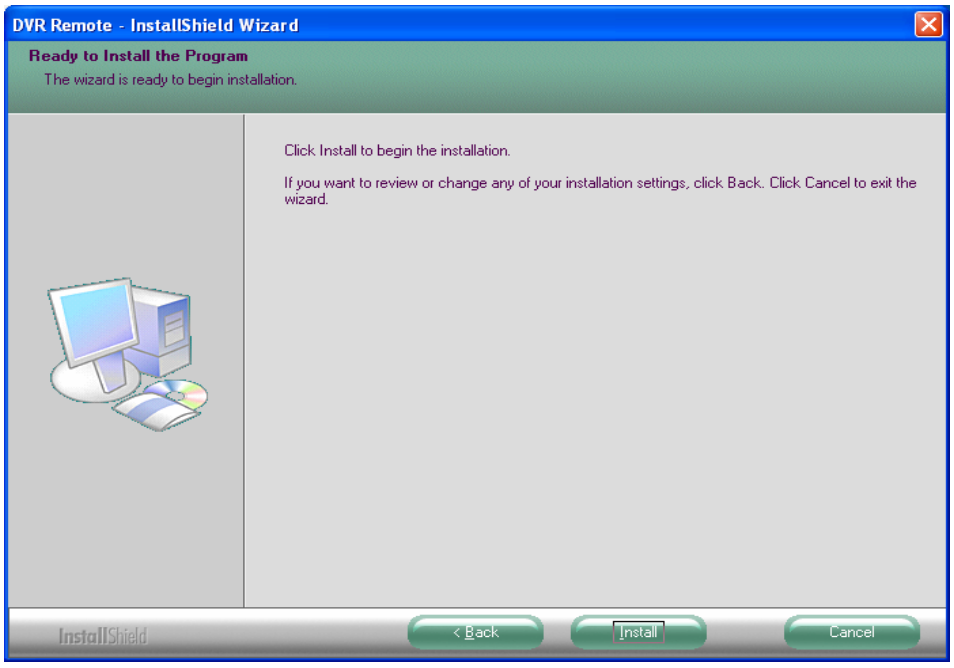
1. Live View
2. Screen splits and channel selection
3. PTZ control: Only users with proper authority to control PTZ remotely.
4. Advanced: Controlling preset, tour and E-map only for authorized users.
5. Speed: PTZ speed control
6. To save live image to JPEG
7. To listen to Audio of a selected channel applied only for authorized user remotely
8. Mode change between Live and Search
9. Log In/Out or EXIT
10. Display web browser information.



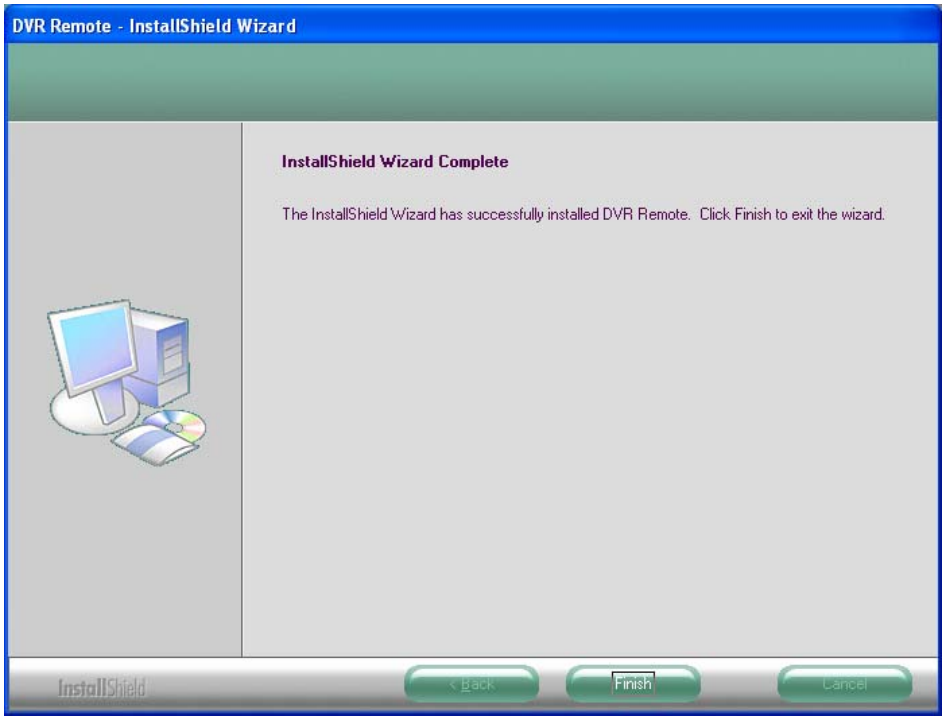
1, Searched Image
2. Selection for image search
3. Playback (Fast back, Back, Stop, Play, Fast Play)
4. Save: AVI, JPEG, BMP
5. Audio
6. To change Tab to CONTROL
7. Log out and go back to LOG IN page



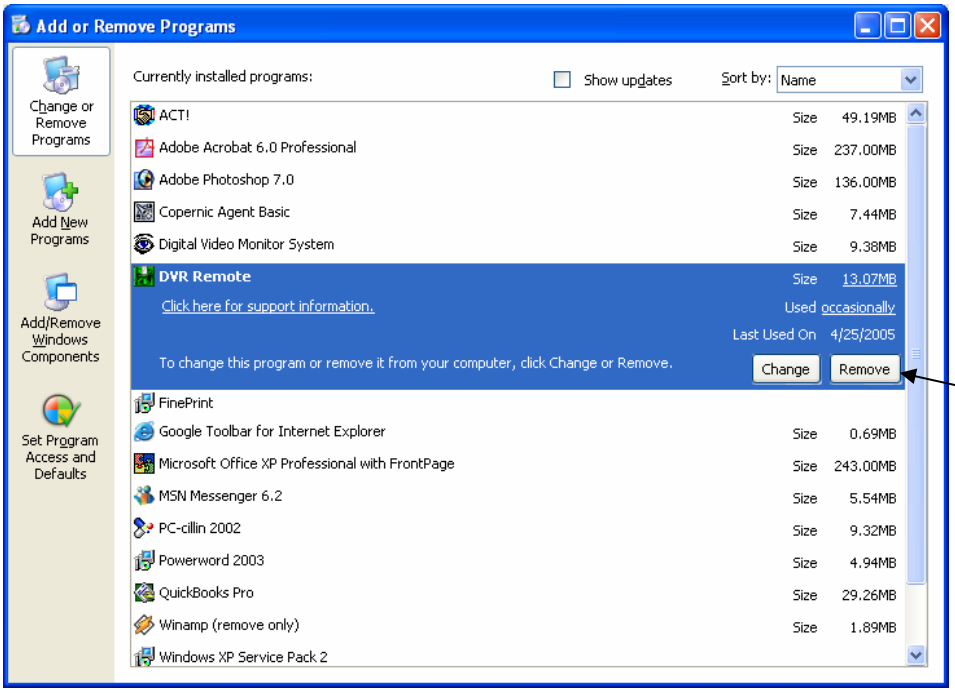
3. Click the “Install Remote Client” button for downloading.


DVR Remote - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Follow the instruction until it comes to the end like the figure below.

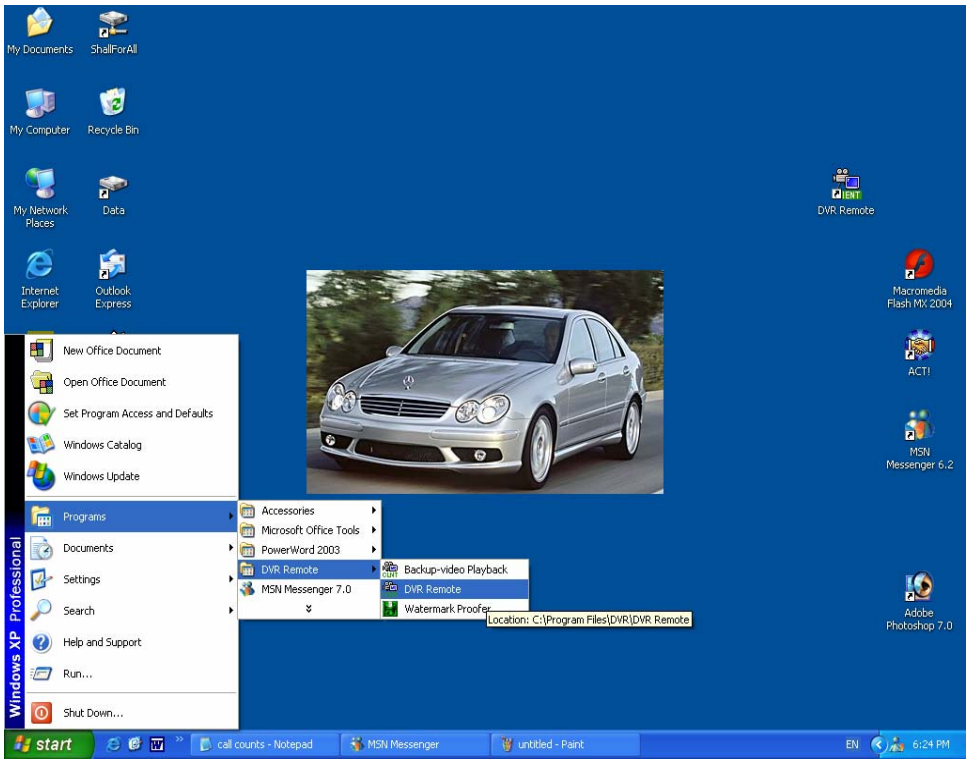


2.4 Uninstallation of DVR program


Add or Remove Programs
Change or Remove Programs
Add New Programs
Add/Remove Windows Components
Set Program Access and Defaults
Currently installed programs:
Show updates
Sort by: Name
ACT! Size 49.19MB
Adobe Acrobat 6.0 Professional Size 237.00MB
Adobe Photoshop 7.0 Size 136.00MB
Copernic Agent Basic Size 7.44MB
Digital Video Monitor System Size 9.38MB
DVR Remote Size 13.07MB
Click here for support information.
Used occasionally
Last Used On 4/25/2005
To change this program or remove it from your computer, click Change or Remove.
Change
Remove
FinePrint
Google Toolbar for Internet Explorer Size 0.69MB
Microsoft Office XP Professional with FrontPage Size 243.00MB
MSN Messenger 6.2 Size 5.54MB
PC-cillin 2002 Size 9.32MB
Powerword 2003 Size 4.94MB
QuickBooks Pro Size 29.26MB
Winamp (remove only) Size 1.89MB
Windows XP Service Pack 2

Click “remove” to uninstall the program.

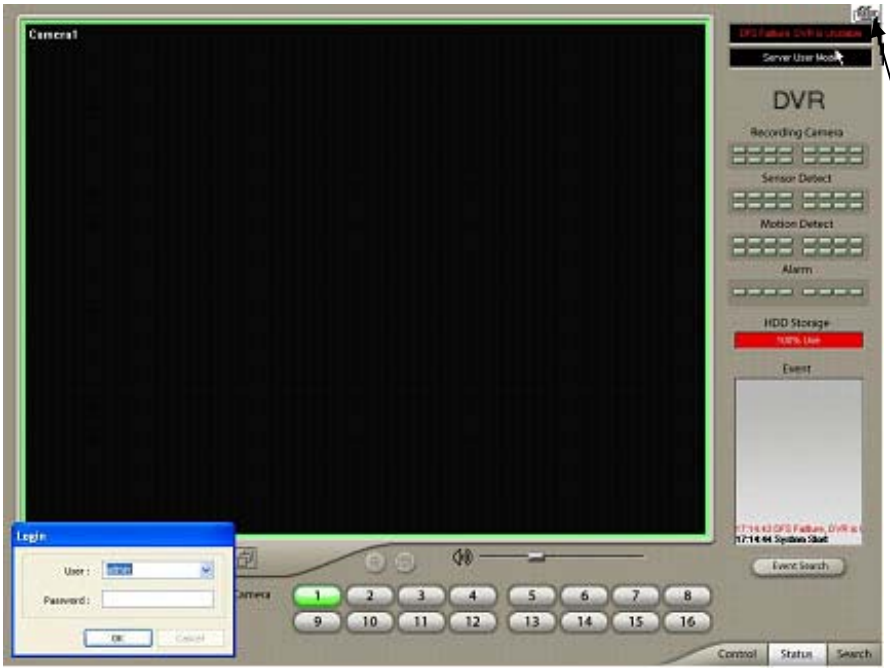
2.5 Program Execution



Find the icons on the desktop to execute “DVR Server” or find “DVR Server” under “All Programs”.

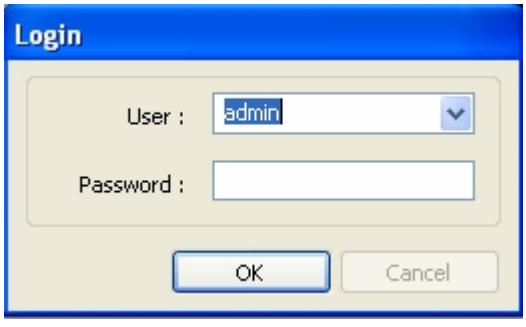
CHAPTER 3
Main System Application (Control)

3.1 Startup Screen



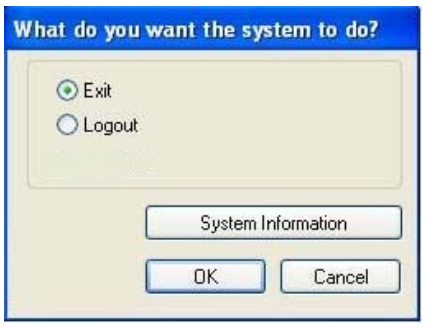
The above screen will appear as DVR Server system starts.

3.2 Login



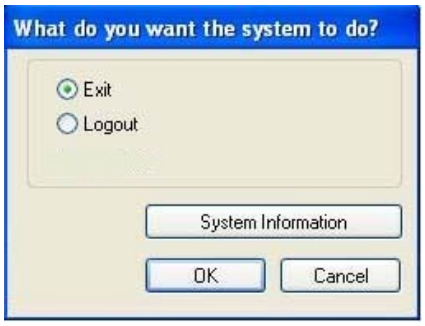
The default values for User and Password are “admin” and “no password”. Click “OK” to execute DVR Server system. To give “admin” a password and to create new users, certain configurations are required (Setup/User). Only “admin” and users with appropriate authorization have access to the Setup menu.
Note: Virtual keypad is available on the right top of GUI if needed

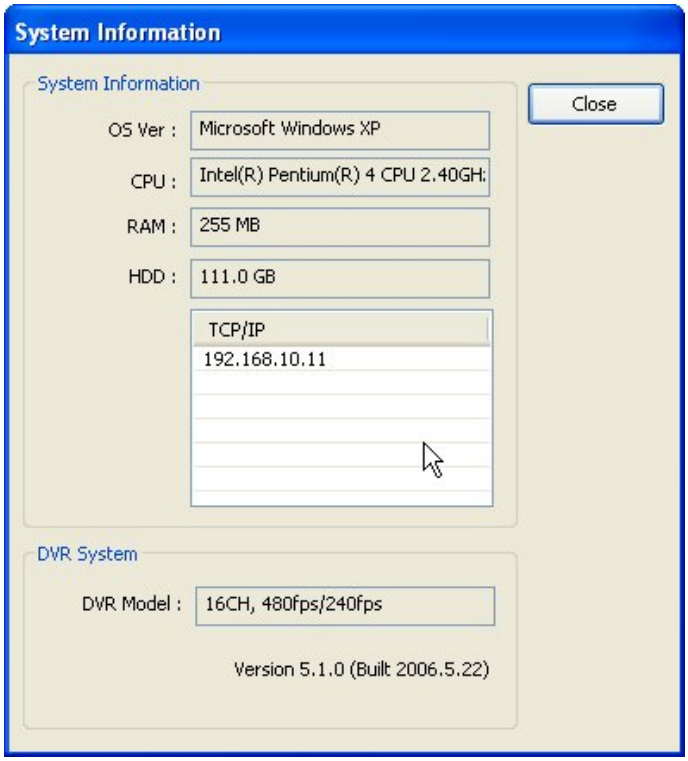
3.3 Exit/Logout



To end DVR Server system, select “Exit” and type in password.

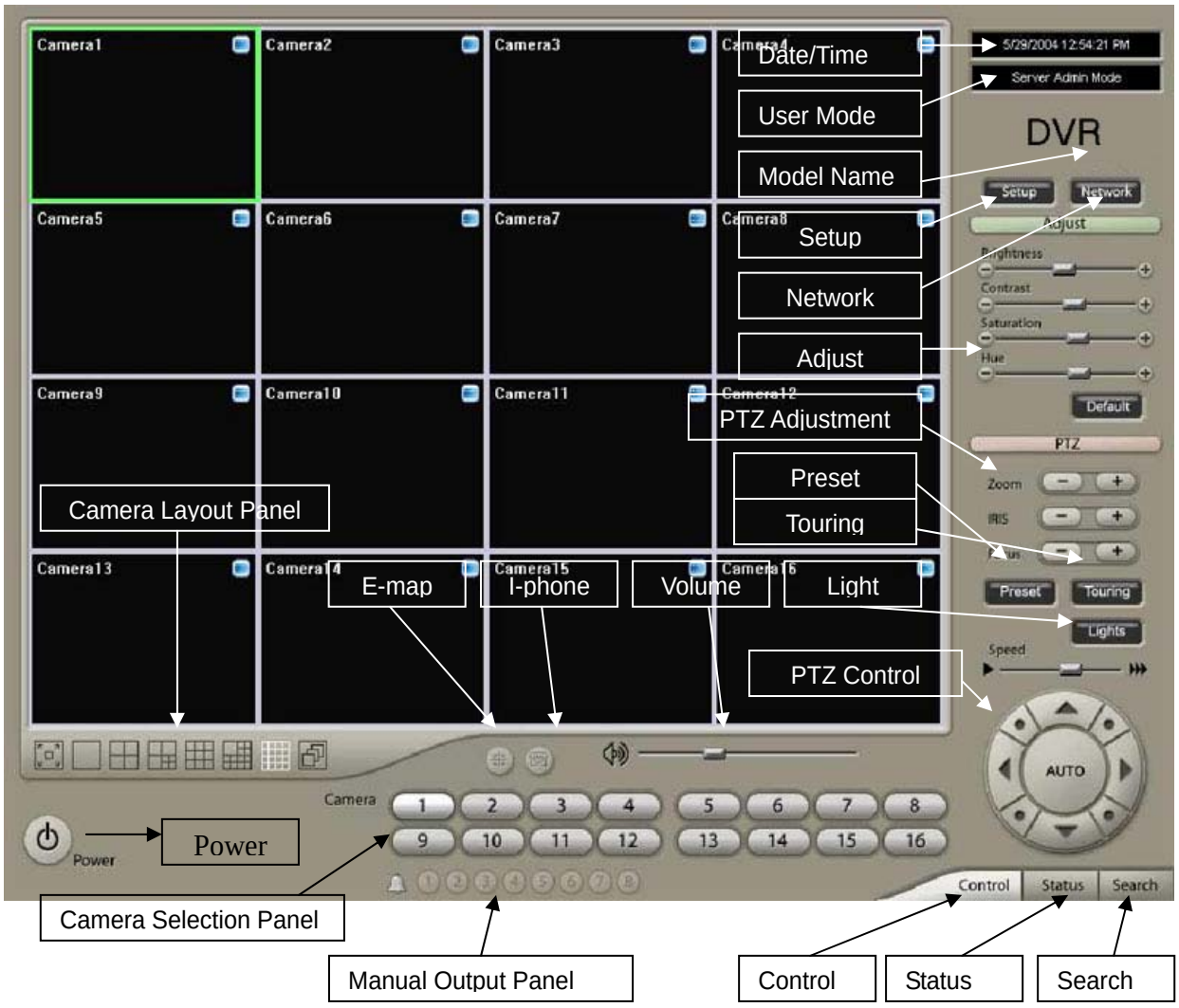
3.4 System Information





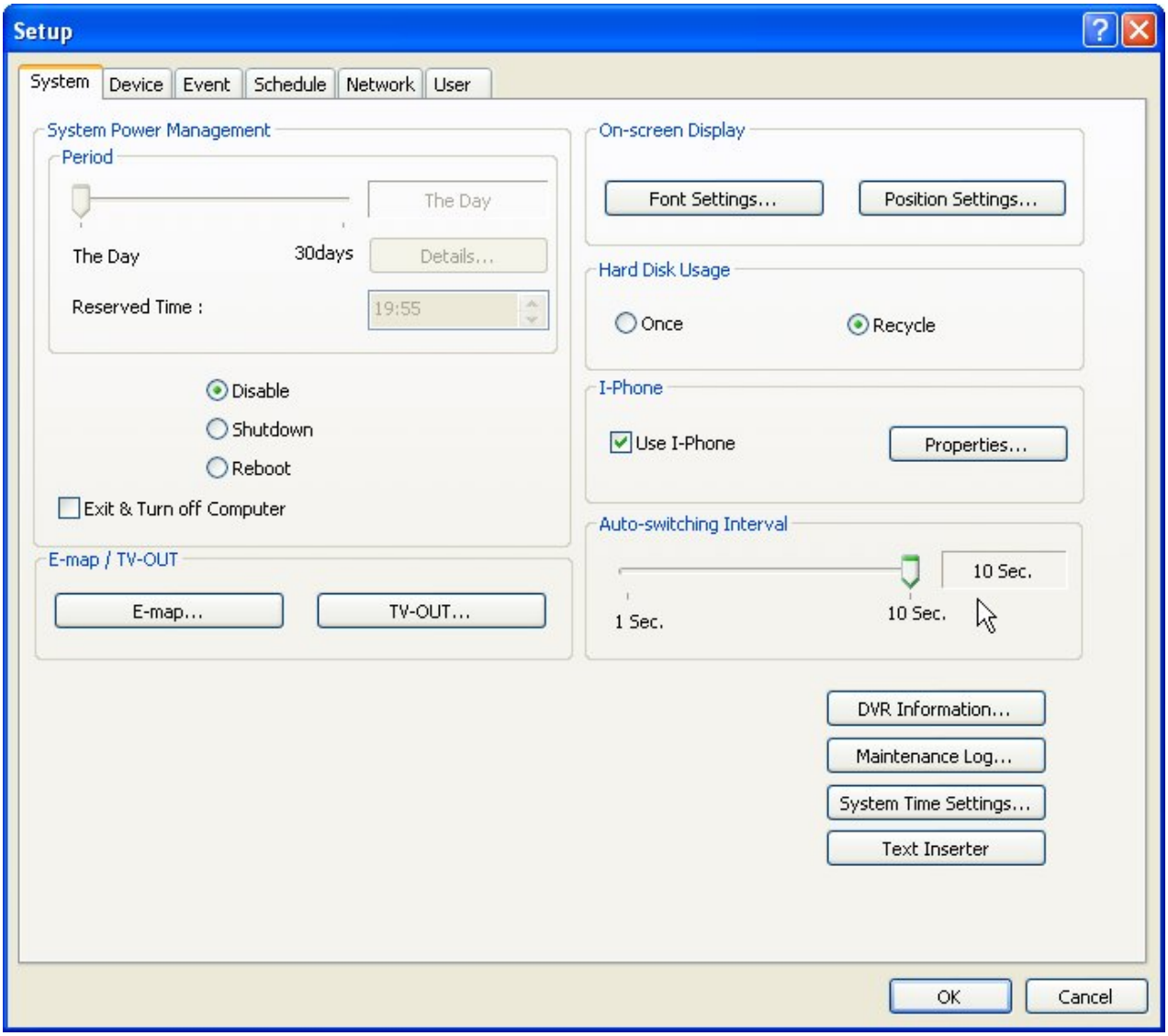
Click on System Information to see DVR system information, such as OS version, CPU, RAM, HDD, IP address, DVR model and DVR software.

3.5 Control Screen



3.6 Setup

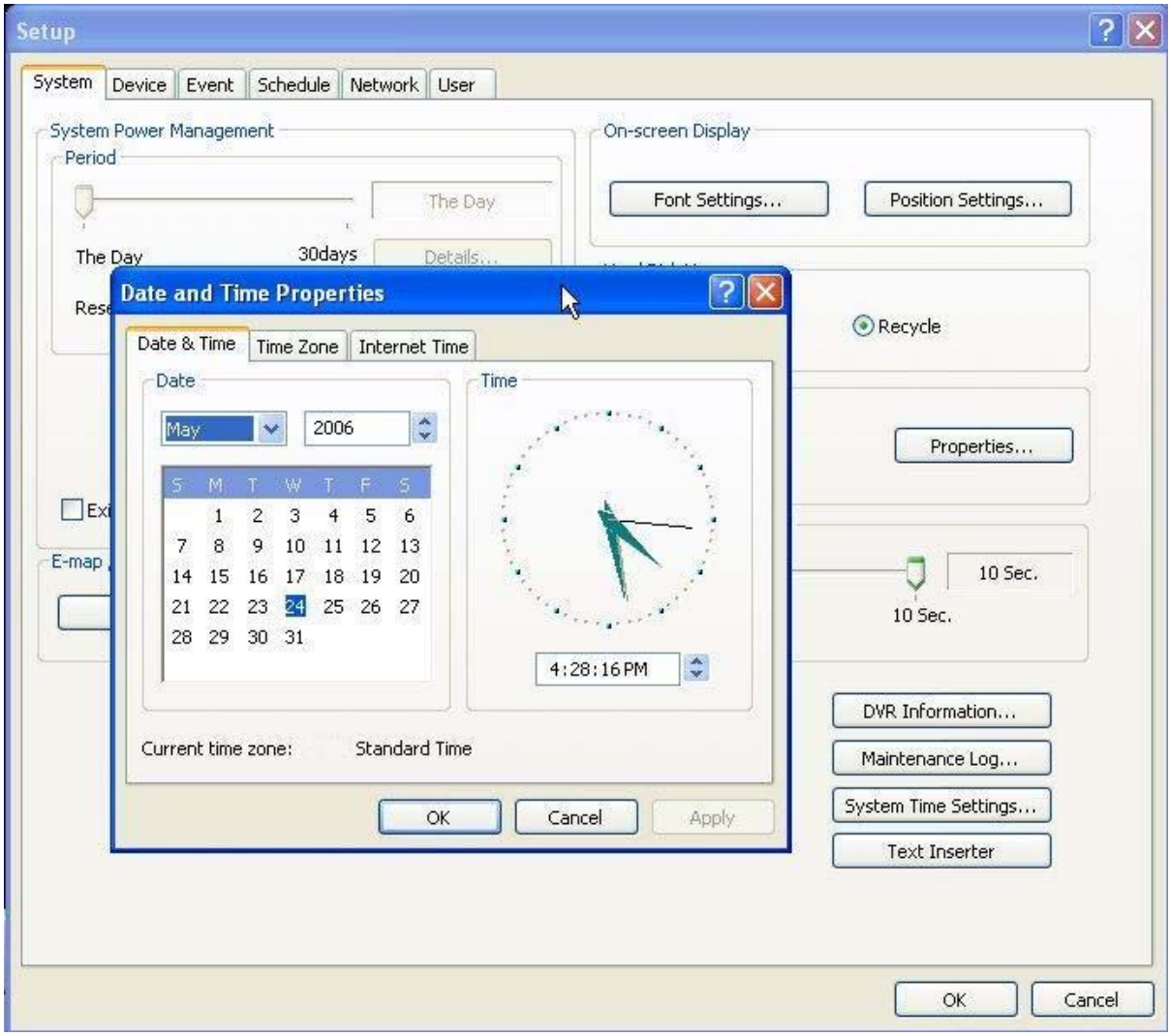
3.6.1 System



3.6.1.1 DVR Information

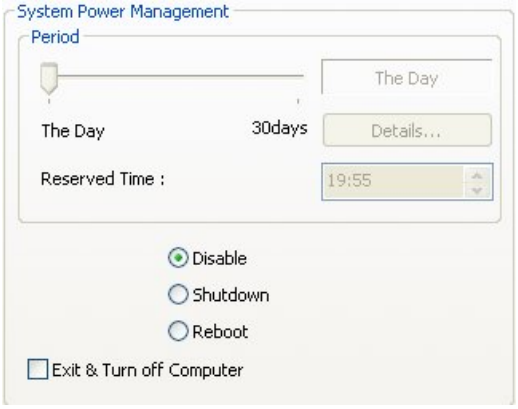
Create a DVR name and put in admin. info. They will be displayed on outgoing e-mails.

3.6.1.2 System Time Setup

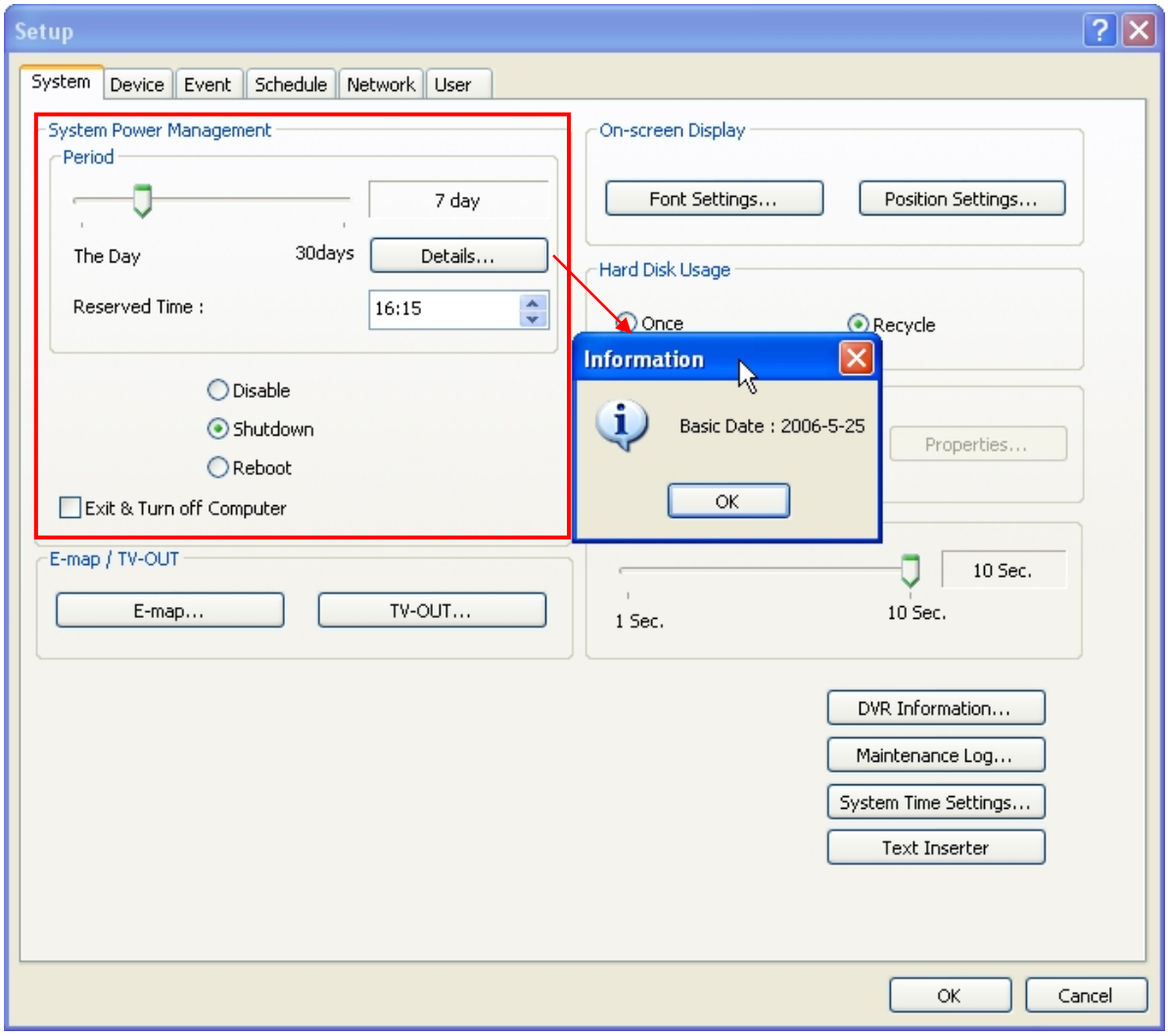


By clicking System Time Setup, user is able to set Date and Time in DVR software.

3.6.1.3 System Power Management



* Period: Select a day that DVR system reboots automatically by the period.
* Reserved time: Time set to shut down or to reboot computer
* Disable: selected when System Power Management is not to be used
* Shutdown: selected when shutting down computer is required at the time set
* Reboot: selected when rebooting computer is required at the time set
* Exit & Turn off Computer: By checking the box, computer will be turned off automatically as a user exits from DVR system.

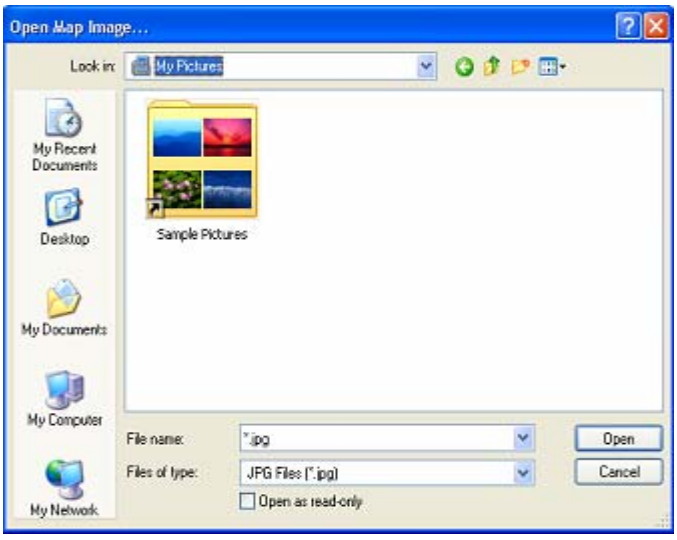


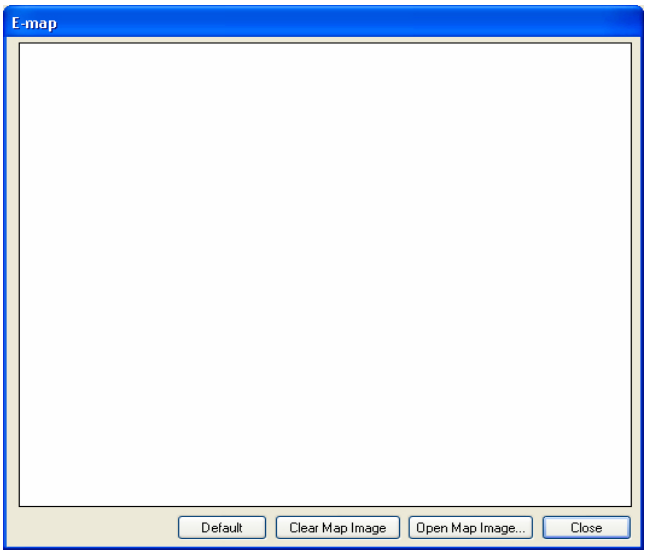
Details: First select either “Shutdown” or “Reboot” to enable Period.
For example in above picture, 7 days after the basic date, system will shutdown automatically. “Details” shows the set date and it will be the starting point.

3.6.1.4 Auto-switching Interval

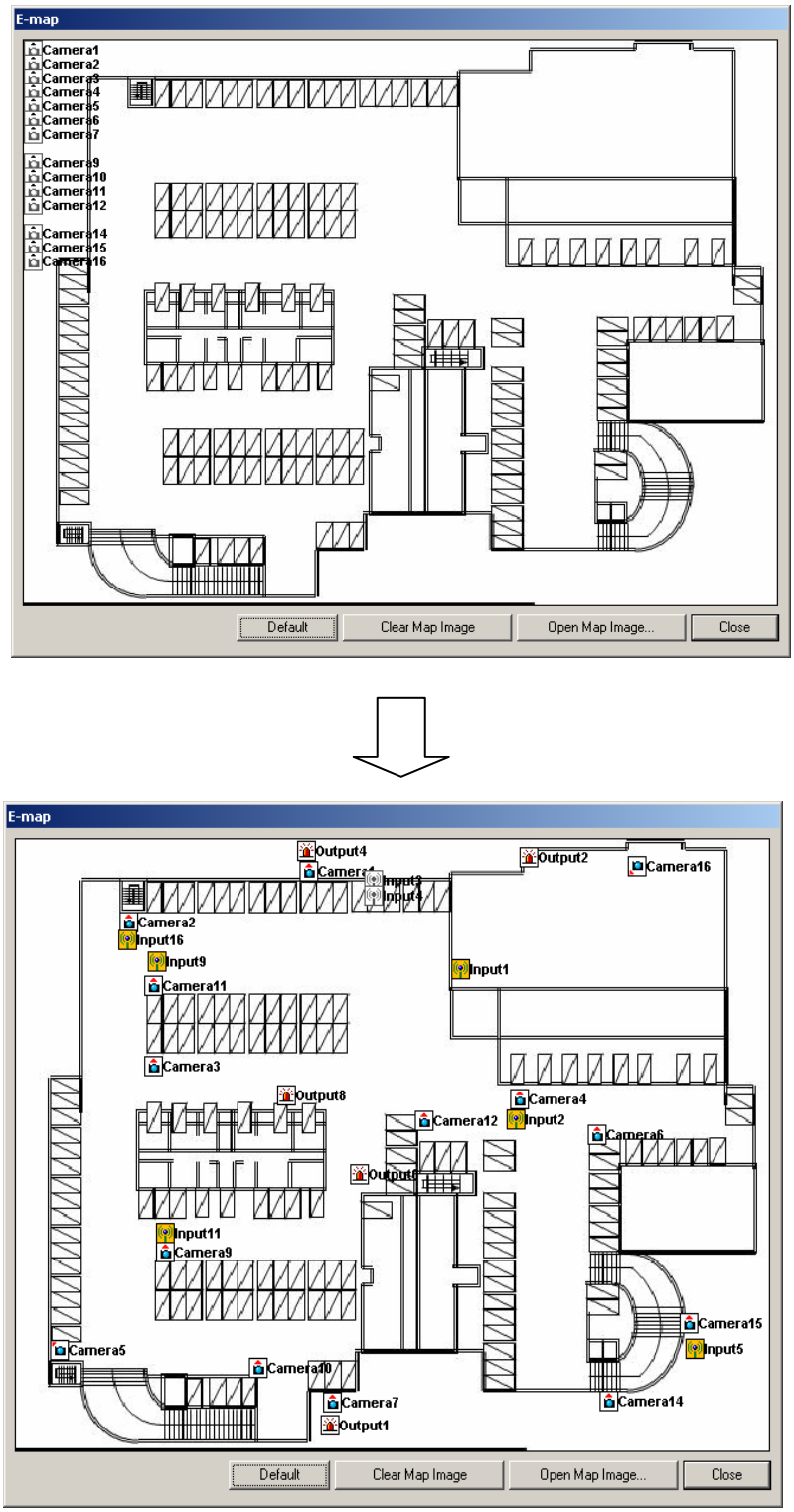
Auto-switching Interval is a function that allows green square around selected camera to move to the next one at the interval set.
e.g.) Camera 1 -> 10 sec. -> Camera 2 ->10 sec. -> Camera 3….

3.6.1.5 E-map

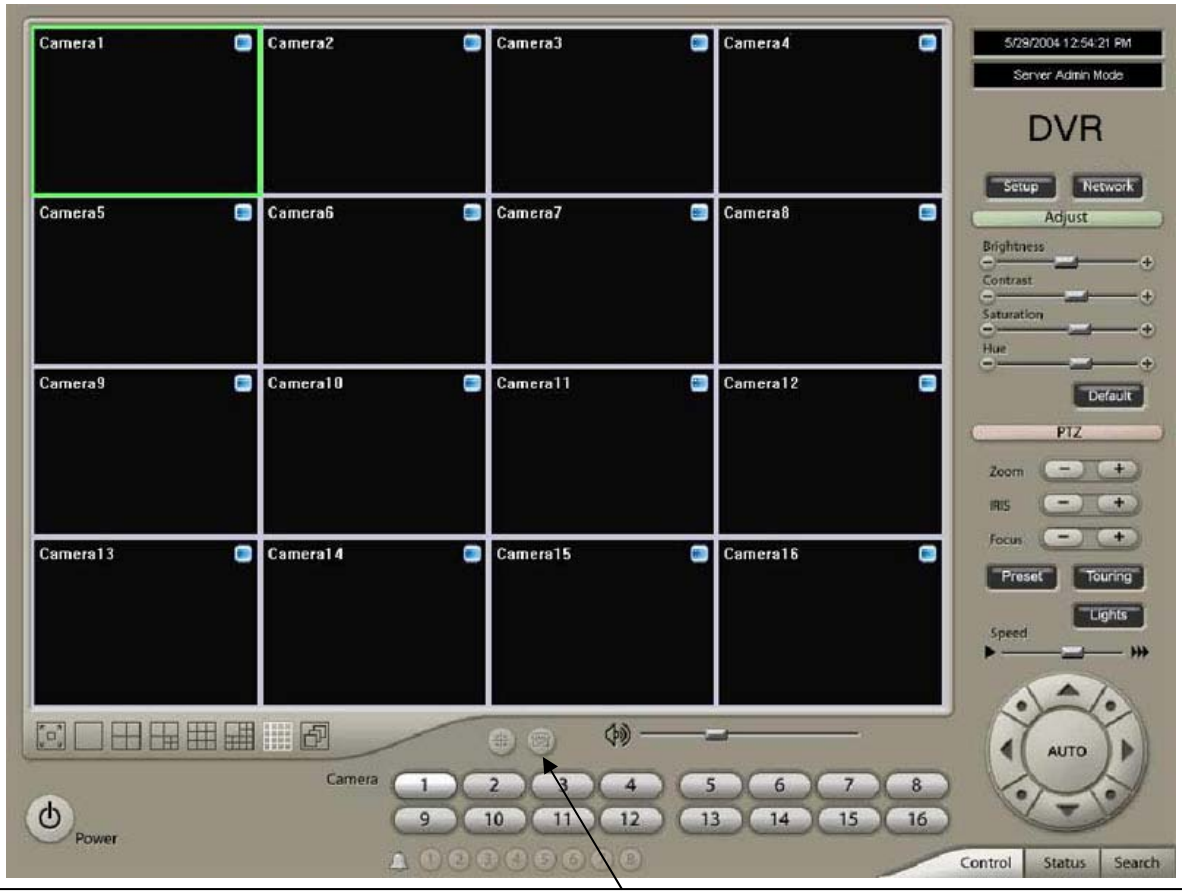




Click on the “E-map” button to design E-map.
Click on “Open Map Image” to select an E-map image.



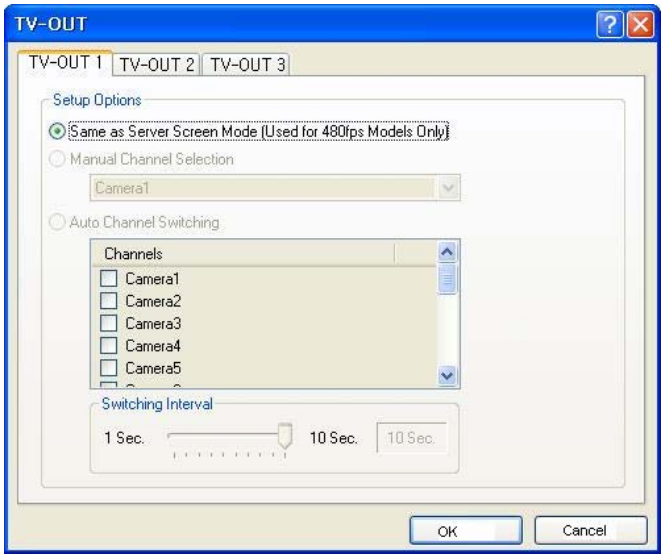
The above is a designed E-map sample. Drag mouse to position Camera/Input/Output and design E-map.



Click on the E-map button positioned next to the I-phone button to open E-map.
White Camera: Not on Recording, Yellow Camera: On Recording,
White Input/White Output: Not Activated, Yellow Input/Yellow Output: Activated

3.6.1.6 TV-OUT

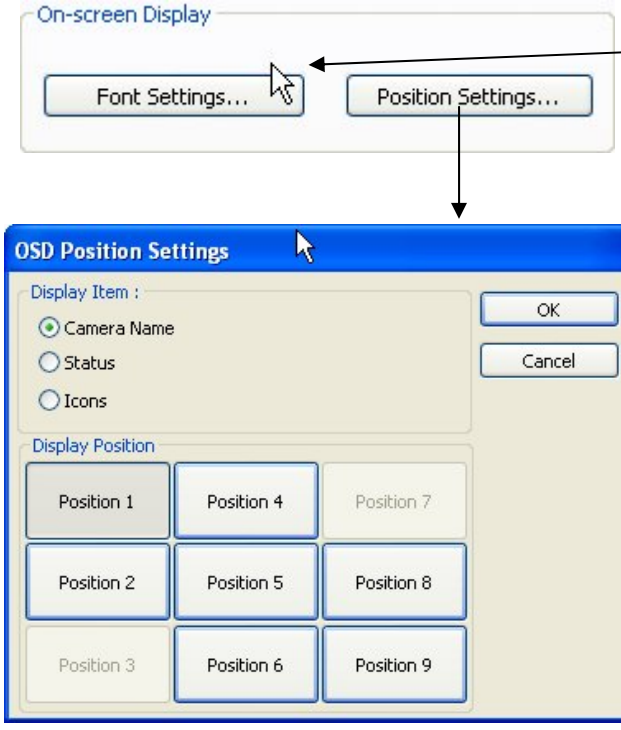
TV-OUT is a function that sends selected cameras to a call monitor (external analog monitor). Click on the “TV-OUT” button for setup.

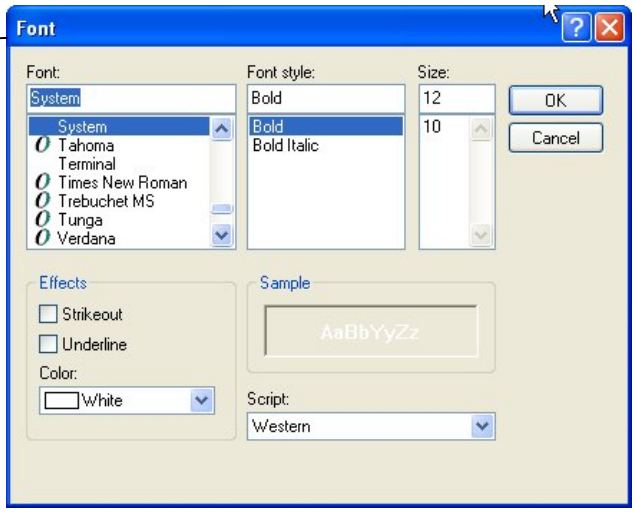


The Number of TV-out Supported			
4-30	8-60	12-90	16-120
1	2	3	4
CA4-60	CA8-120	CA16-120	CA16-240
1	1	1	2
CA8-240		16-480/240	
2		3	

Manual Channel Selection - Channels are selected manually. Once "Manual Channel Selection" is selected, channels can also be selected manually on Control screen by placing mouse on camera picture and clicking the right mouse.
Auto Channel Switching - Selected channels rotate to display at the switching interval set.
* Switching Interval: The length of time to stay at one camera

3.6.1.7 On-screen Display





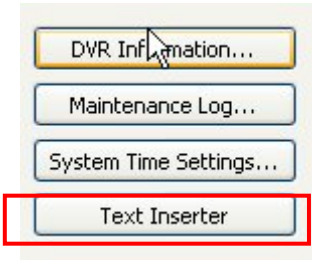
Font Settings: Font change on screen display.
Position Setting: Position change on screen display.

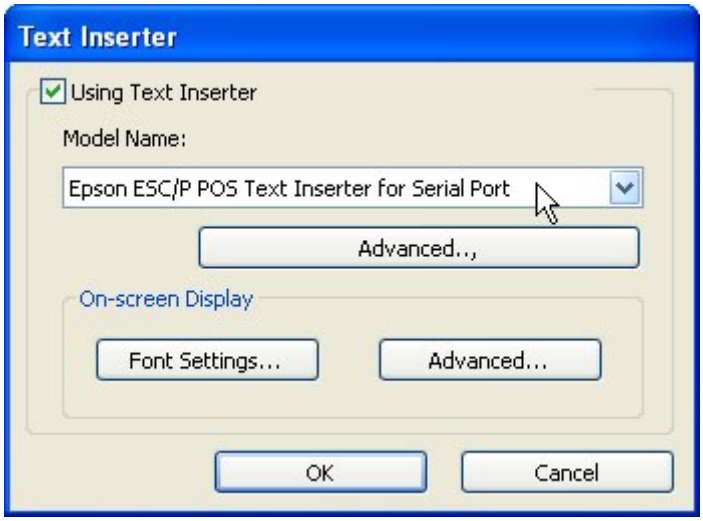
On a camera screen, you may click one right mouse to control OSD as bellows.
* Show Camera Names and Status: By checking it, camera names and status will be displayed on camera pictures.
* Show Motion Detection Blocks: By checking it, green motion detection blocks will be displayed on camera pictures when recording schedule is set as “M” (Setup/Schedule).
* Show Object Detection Blocks: By checking it, blue object detection blocks will be displayed on camera pictures.

Note : One right mouse click can be a very useful tool. Manual TV-out and OSD setup can be done. Additionally, instant recording can start by one click.

3.6.1.8 Text Inserter

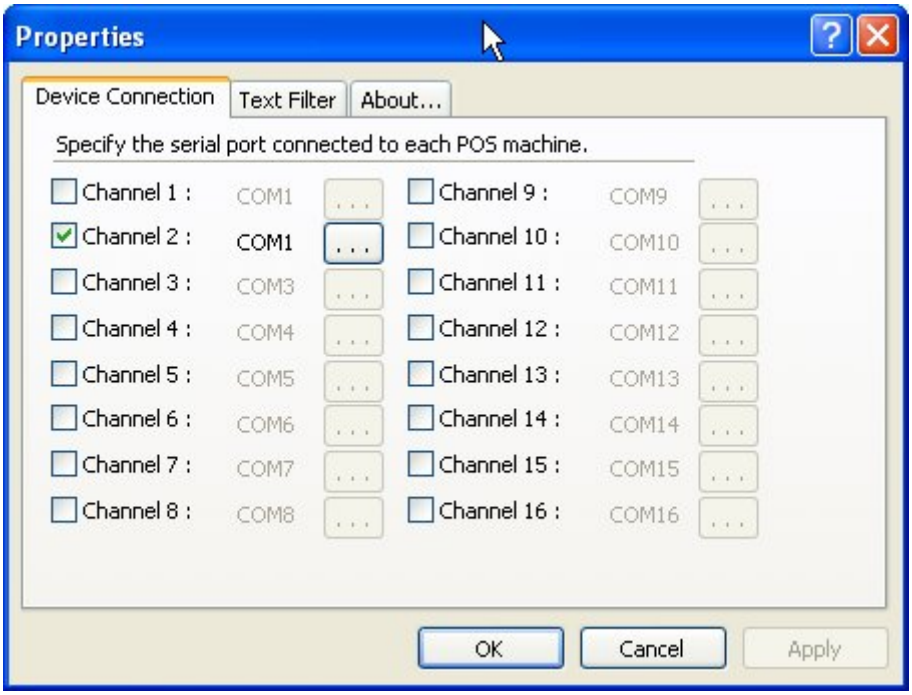
Text Inserter is a function that allows DVR system to integrate with POS machines. Simply select POS driver like selecting PTZ driver to enable POS text inserter program and transactions that occur will be displayed on selected camera pictures. Transaction recording and text search are possible as well.
For more detailed installation and information, refer to Appendix 1.



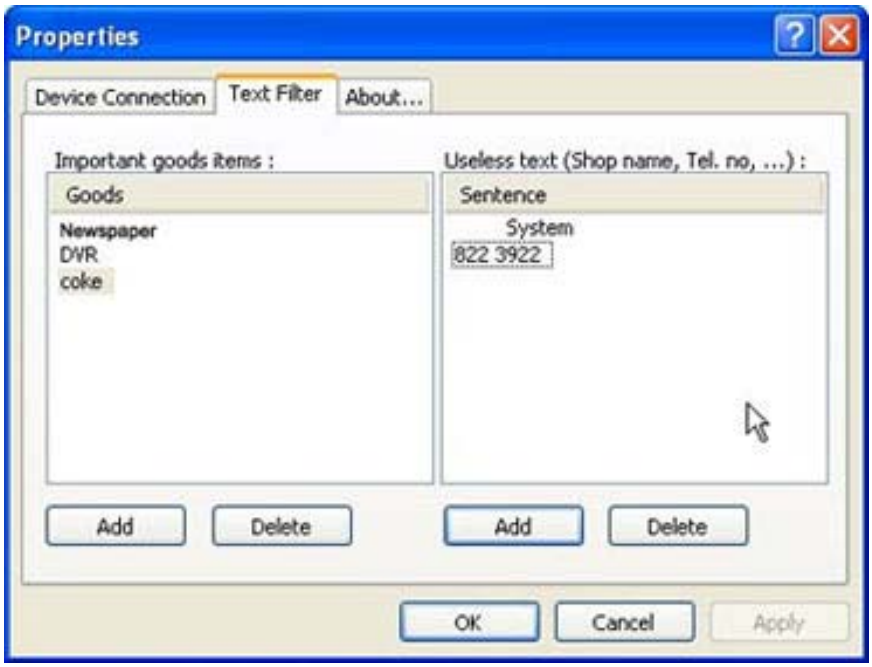


How to Set

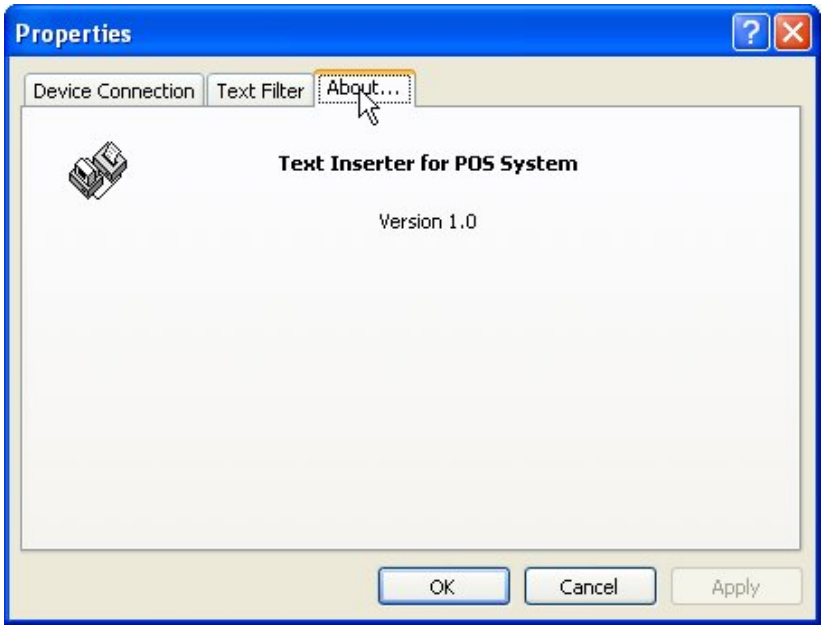
1. Tick the “Using Text Inserter”
2. Choose a connected POS driver.(POS driver is addable as PTZ protocol adding.)
3. Click on Advanced to set hardware feature.

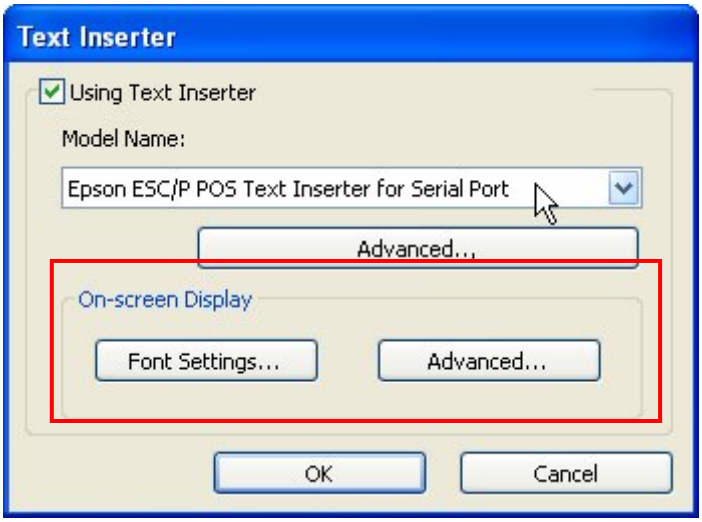


*Device Connection:
Select camera(s) and a comport connected with POS system(s)

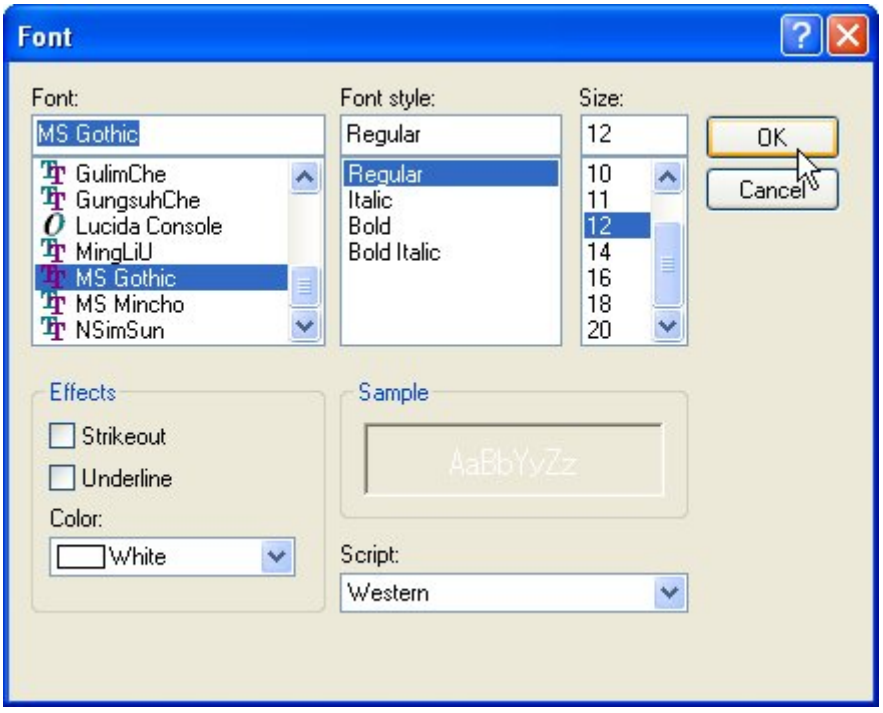


* Text Filter: Register important goods and useless text to display distinguishably and search POS data conveniently.
* Important goods items: Pre-registered items will be displayed in red characters.
* Useless text: It is not going to be displayed during transaction.

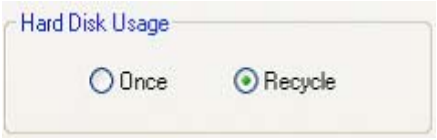




Font Settings: Font change on screen display.
Postion Setting: Position change on screen display.

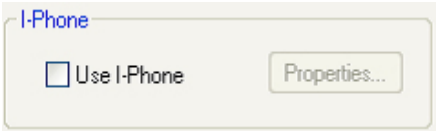


3.6.1.9 Hard Disk Usage

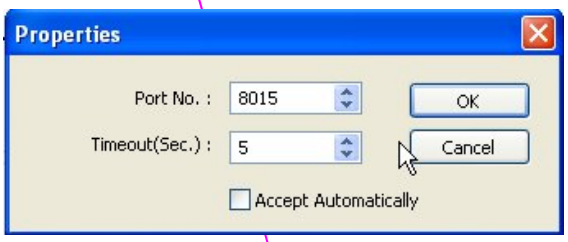


Hard Disk Usage is to select data storage method. If “Once” is selected, data will be stored up to the point where HDD reaches its maximum capacity. If “Recycle” is selected, data will be overwritten from the point HDD reaches its maximum capacity based on “First In First Out”.

3.6.1.10 I-Phone



I-Phone is “Two-Way Audio Communication”.
Check the box, go to Control Screen, and click on the I-Phone button for audio communication. For more detailed I-Phone setup, refer to Appendix 2.

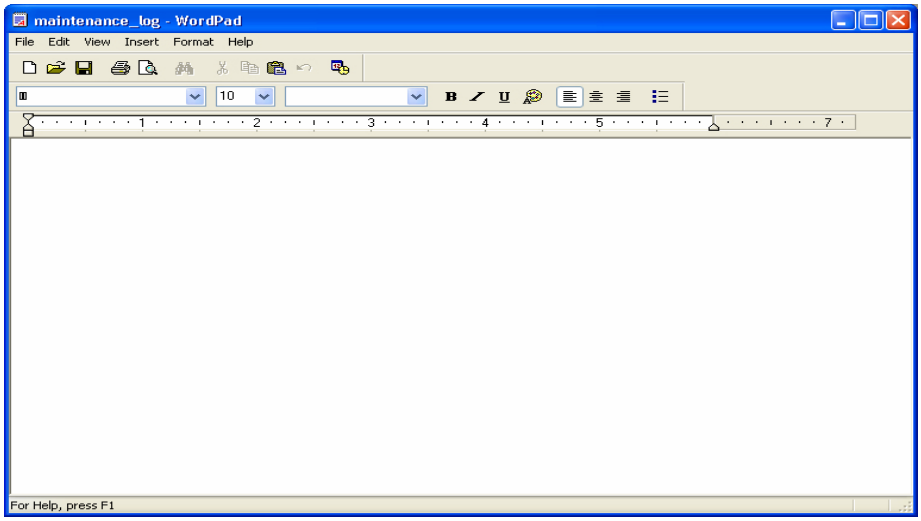


* Port No.: A port number for I-Phone use has to be set up. Normally the default value is good to use.
* Timeout: It indicates the maximum length of connection trial. If there is no response within the value set, call will be cancelled.
* Accept Automatically: To accept counter part’s IP-phone connection without checking a confirmation message.

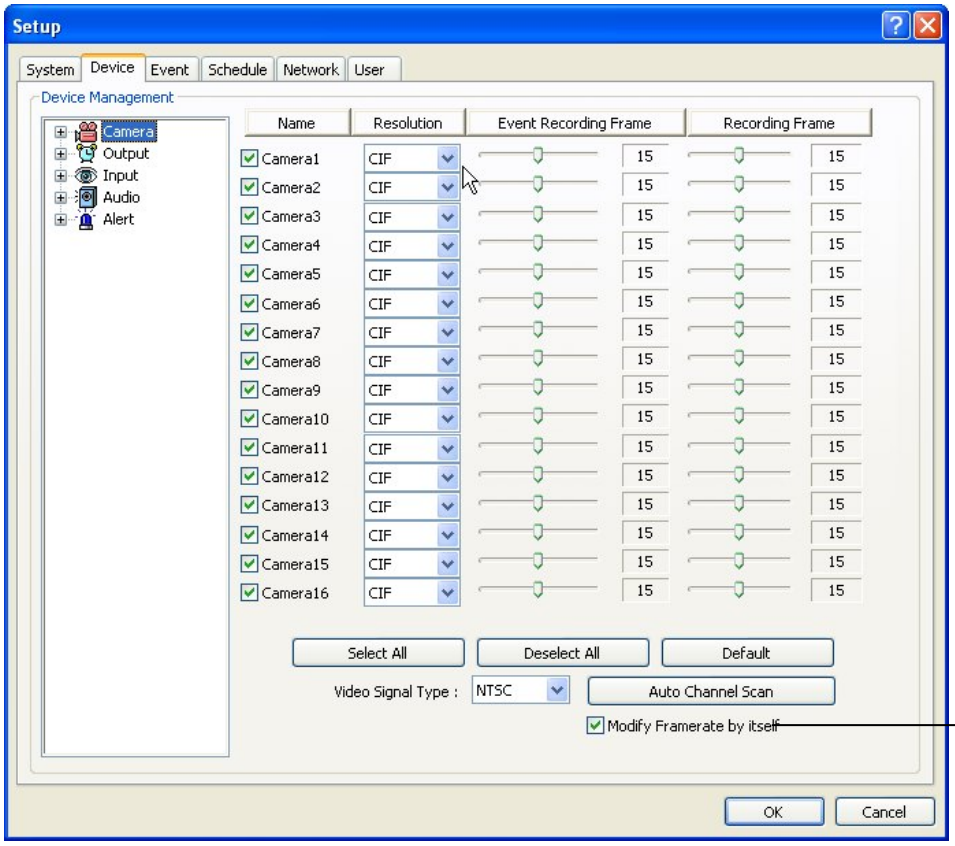
3.6.1.11 Maintenance Log

Maintenance Log

It is used to record and view maintenance history.



3.6.2 Device



Device sub-screen is divided into 5 different setup categories; Camera, Output, Input, Audio and Alert.
All devices in each category can be set up on one same page.

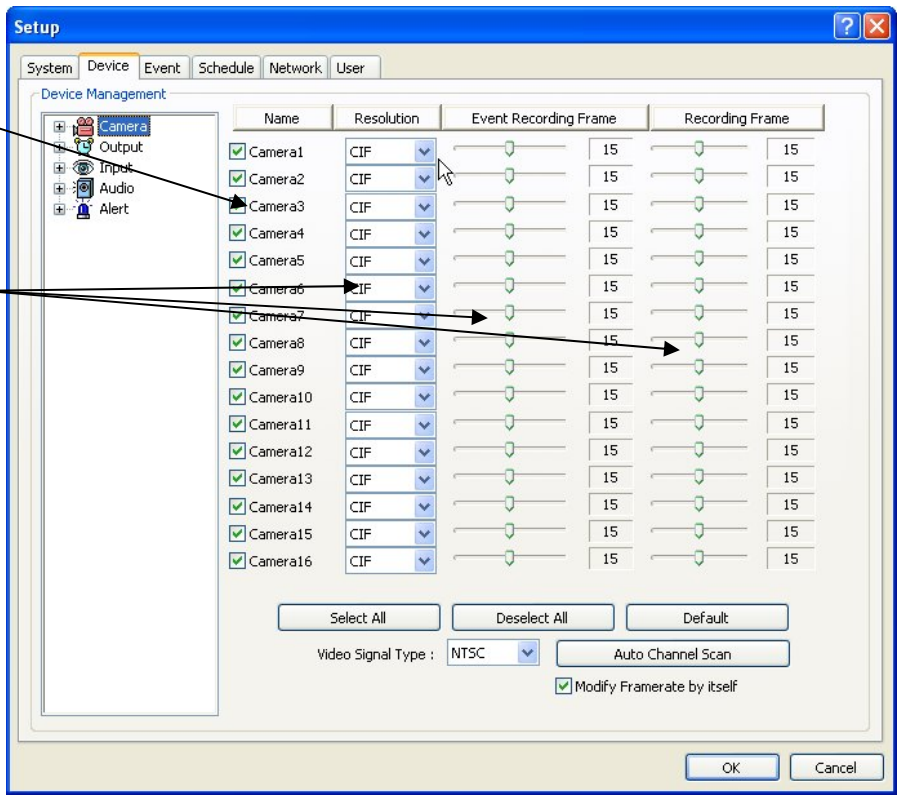
Modify Frame rate itself :By ticking it, DVR software will automatically allocate proper frames to channels.

3.6.2.1 Camera

Cameras will be enabled by checking the boxes.

Different resolutions and recording frame rates can be set up for different cameras.

* Video Signal Type: Select either NTSC or PAL.
* Auto Channel Scan: It automatically identifies all the active video channels. Make sure to always click and scan after S/W version change.
* Default: It sets “Event Recording Frame” and “Recording Frame” as default values.



[Camera]

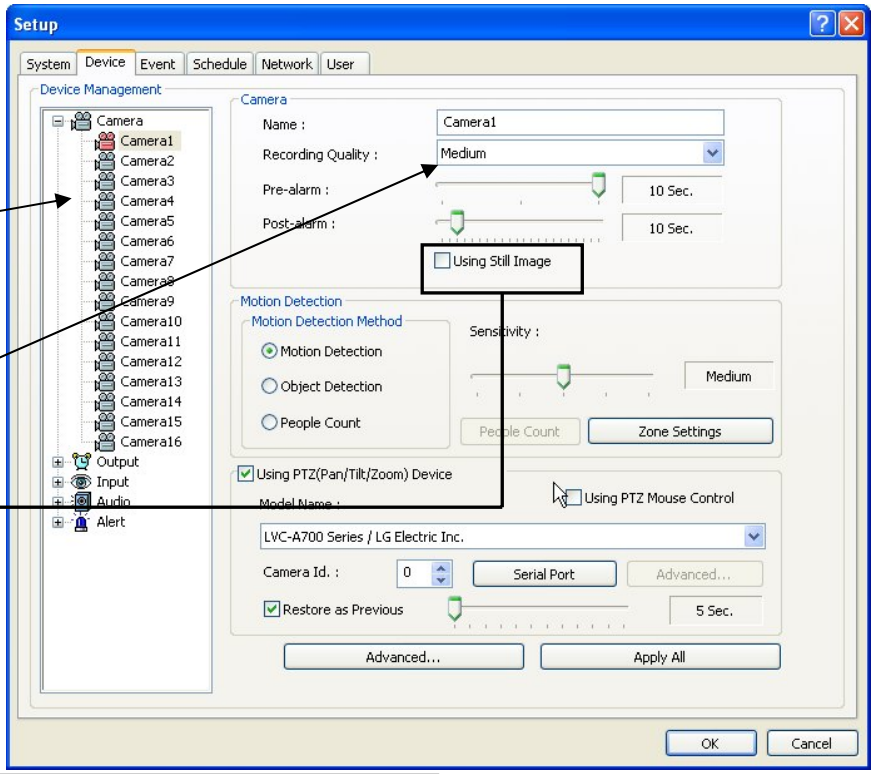
Double-click on “Camera”for more individual Camera setup.

Select recording picture quality.

Using Still Image :

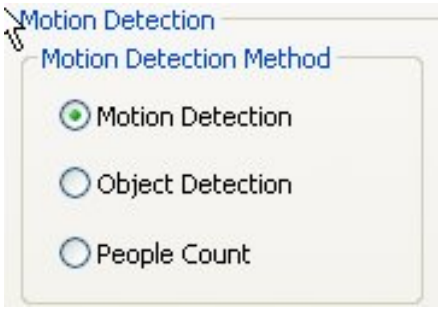
It is a function that captures still image when Recording schedule mode is set as E or H.

(Caution) Under R mode at Recording schedule, this function stop recording the channel.

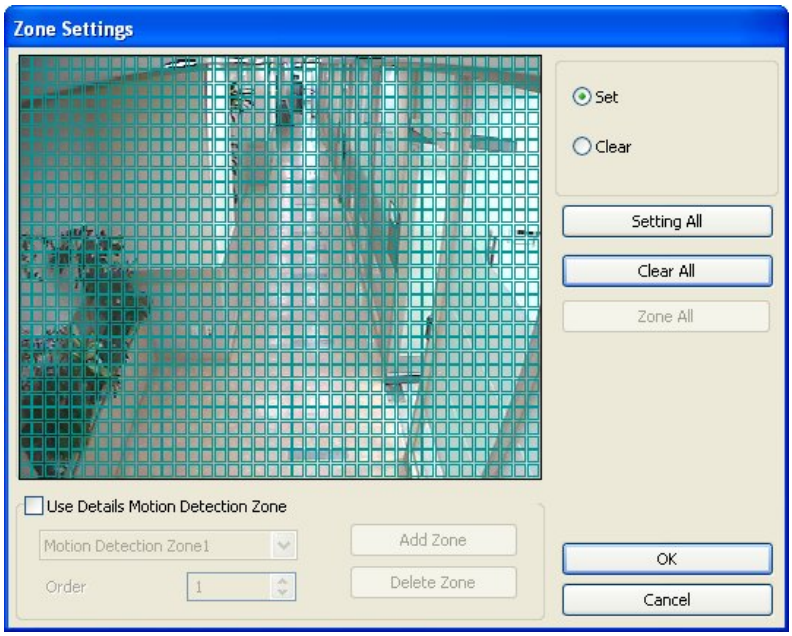


* Pre-alarm (max. 10 sec.): Length of time to be recorded before event
* Post-alarm (max. 10 min.): Length of time to be recorded after event

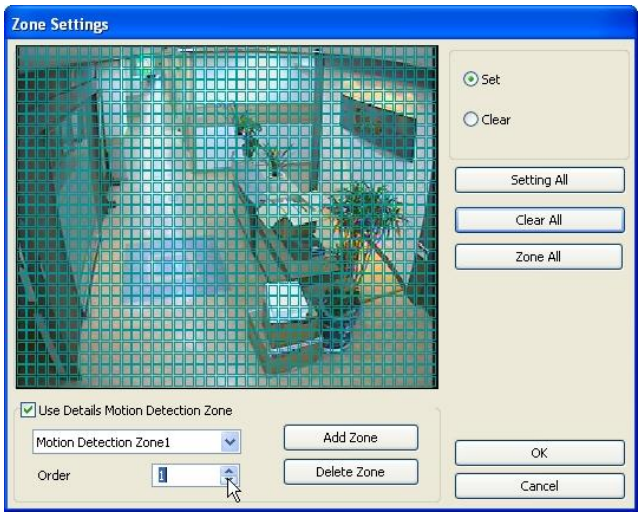
[Motion Detection]

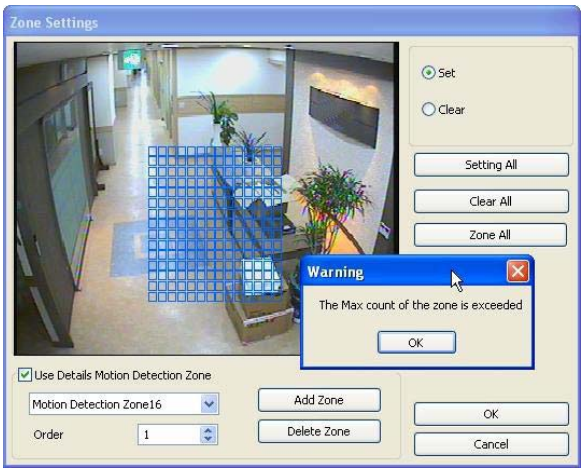


Select a function among Motion detection, Object detection and People Count.
Motion detection is a function that DVR software detects every movement or motion by comparing a frame with its previous frame.



Zone Setting:
1. Drag mouse on desired place to set motion detection zones.
2. To clear the zones set, click on “Clear all” or drag mouse after click on “clear”:.

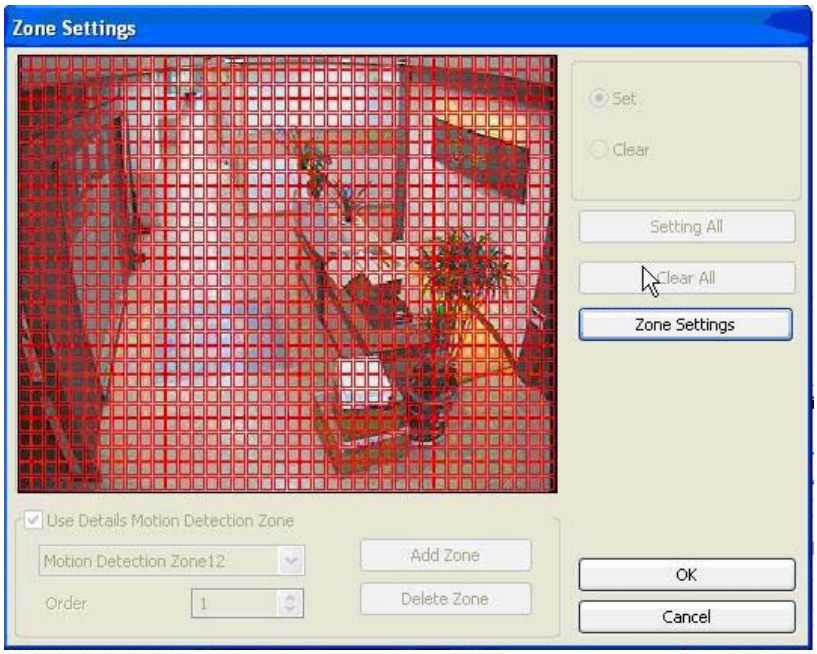




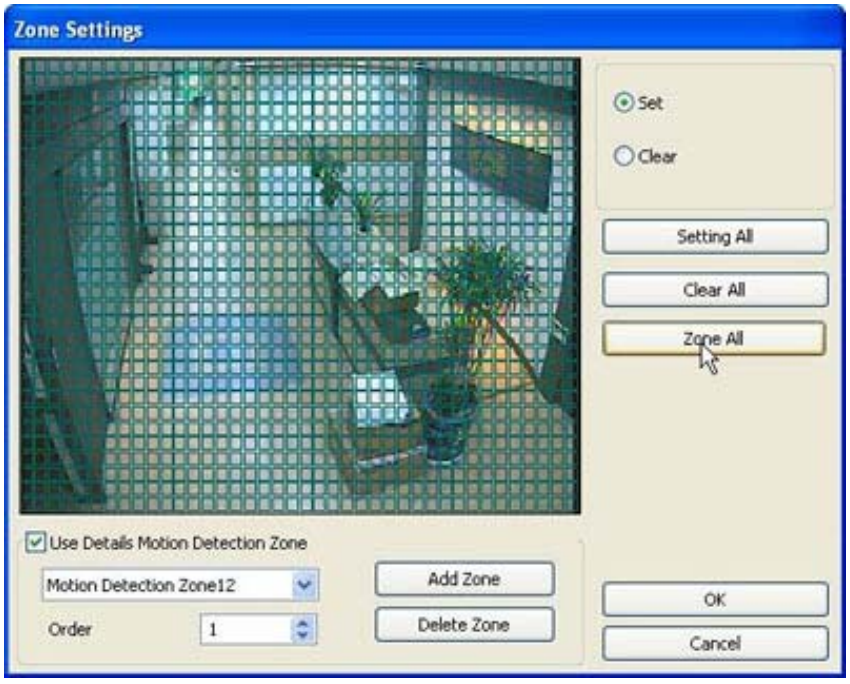
Use Details: To set more than one motion detection zone. Possible up to 16 motion detection zones with all different colors.

How to set
Click on “Add Zone” and select another zone desired to be detected.

Note: If the number of zones exceeds 16, above error message will be appeared.

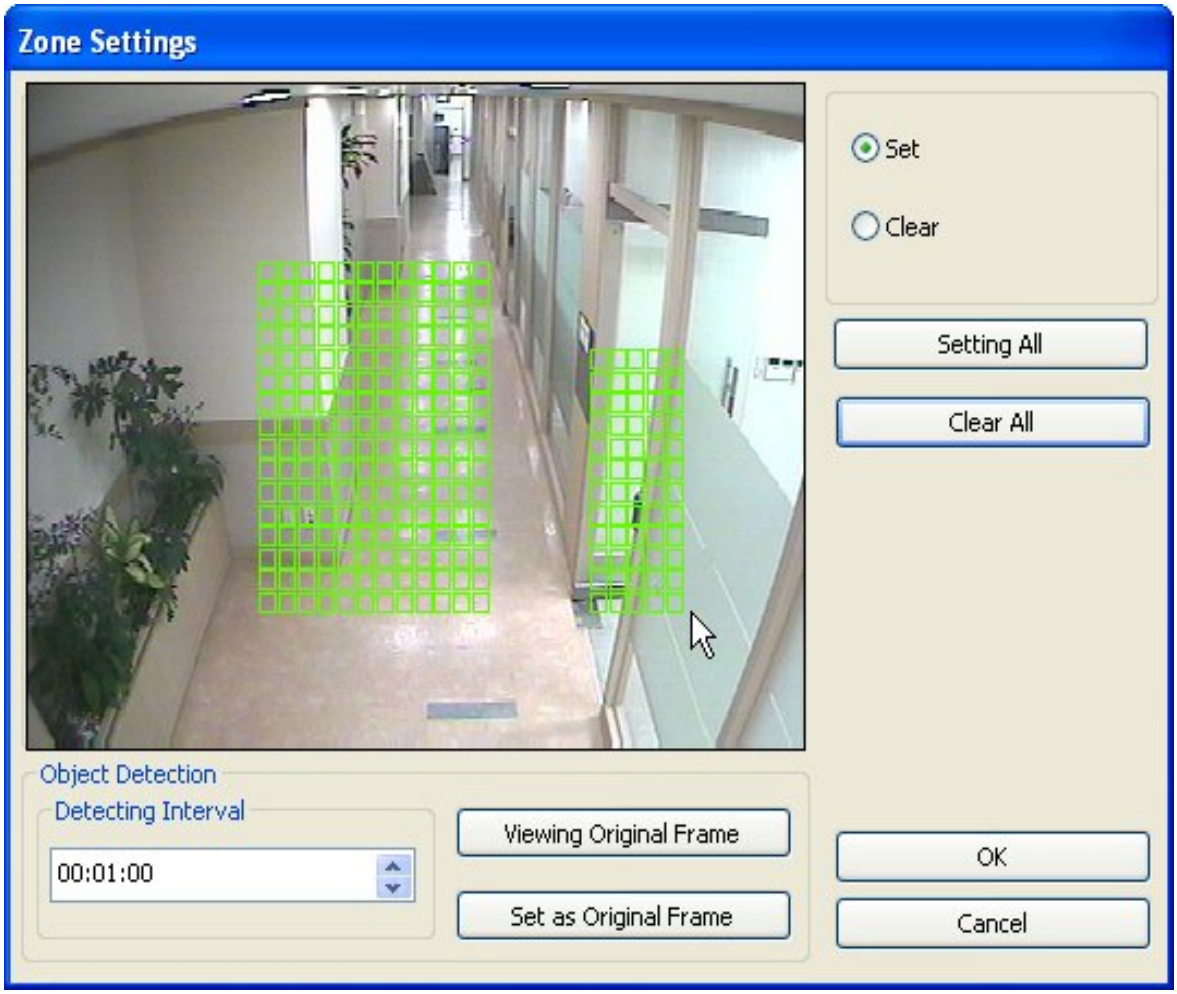


Zone All: Displays all areas together that have been set for the zones.



Setting All: Select whole area
Delete Zone: Deletes zones one by one.

[Object Detection]



It is a function that marks all the changes occurred from the original scene.
DVR will detect new & missing objects after a certain period of time (detecting interval).
*Detecting Interval: An interval that DVR tries repeatedly to detect any object change in the zone set. For example, if the object is appeared and remained only 5 seconds, it will not be detected in case 1 min. detecting interval is set as above.
*Viewing Original Frame: Checking an original image set.
*Set as Original Frame: Save an original image to be monitored to check missing or appeared object.
*Set: To mark a zone.
*Setting All: Select all zone in a selected channel
*Clear All: To clear set zone.

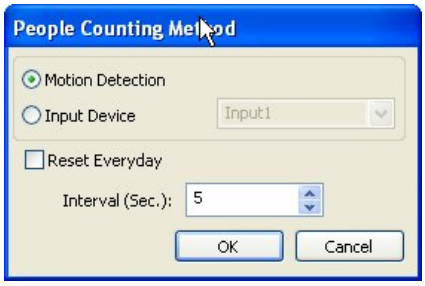
Object Detection Blocks	Click the right mouse and select “Clear Object Detection Blocks” to remove all the blocks.

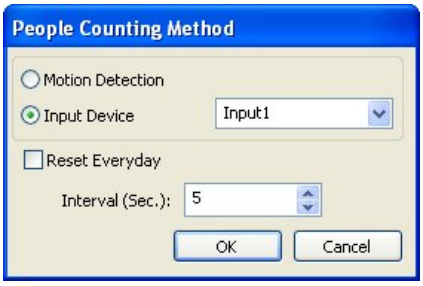
How to Set up:

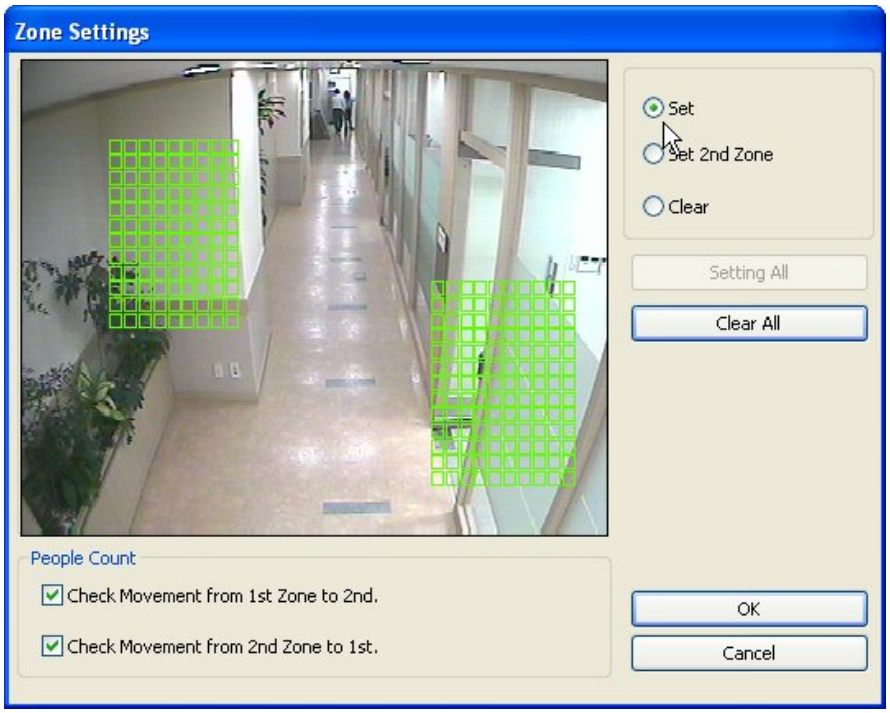
- Tick the “Object Detection” box and click on “Zone Settings”.
- Drag the mouse to select object detection zone (same as “Motion Detection”).
- Click on the “Set Frame” button to select original (default) image.
- Go to “Detection Interval” and determine when to mark new object after its pause.
- Go to “Setup/Schedule” and select “M”
- Go to the “Control Screen” and find the red-squared “Object Detection” symbol.
- One click on the “View Original Frame” button will display original image set.
- Click it again to reactivate the “Set Frame” button.

[People Counter]

It is a function that counts people coming in and out of a certain place.







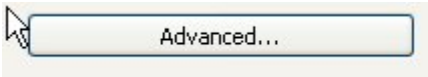
How to Set up:

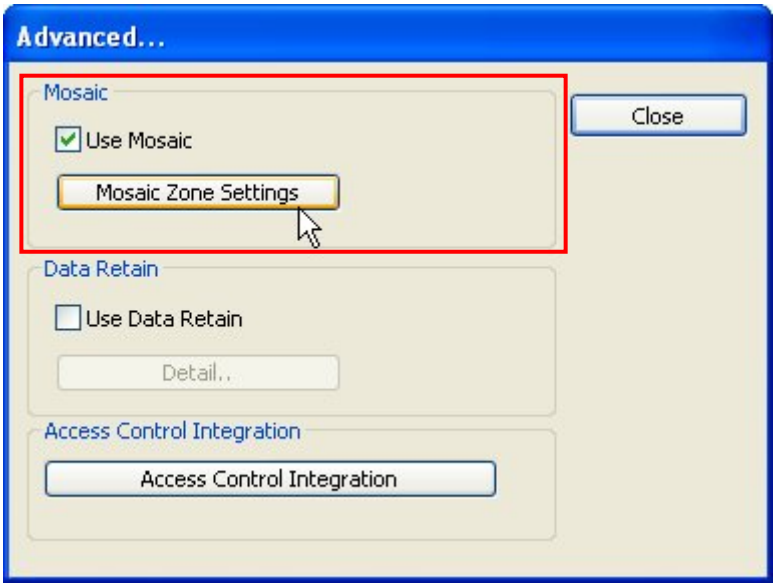
1. Set Count Interval.
2. Set zone by dragging mouse.
3. If a directional counting is needed, select one.

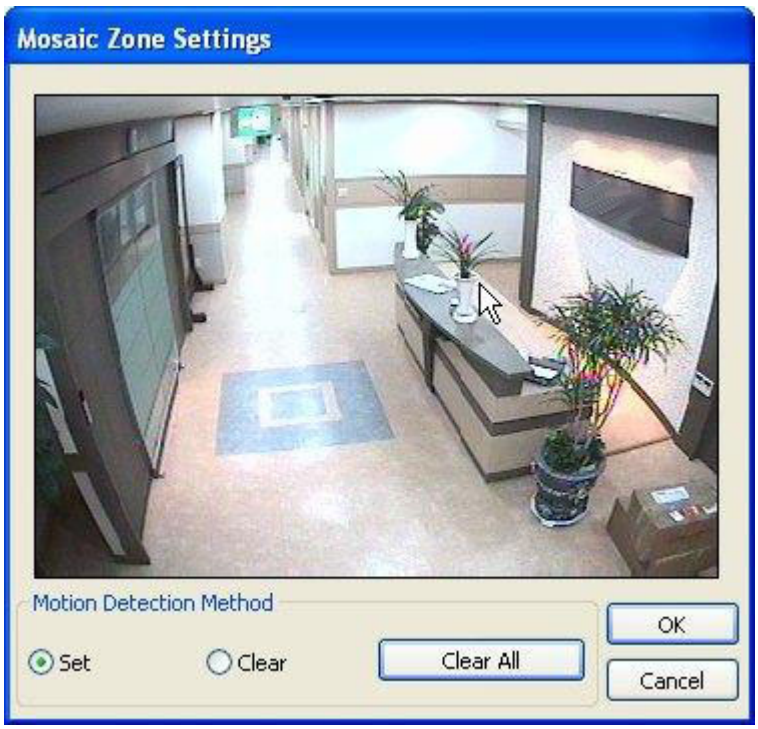
*Motion Detection: Counting by Motion Detection.
*Input Device: Counting by Input Device such as sensor.
*Reset Everyday: Tick box to reset everyday automatically.
*Interval(Sec.): Counting interval from the time object is detected.
*Check Movement from 1st Zone to 2nd: Counting based on the direction a place to another.
*Check Movement from 2nd Zone to 1st: Counting based on the direction a place to another.
*Set: Set the first zone.
*Set 2nd Zone: Set the second zone to be detected.
*Clear: Clear the zone selected.
*Setting All: Selects all areas on the screen.
*Clear All: Clear all zones selected.

[Mosaic]

It is a function that veils restricted areas to keep regular users uninformed.







How to Set up:

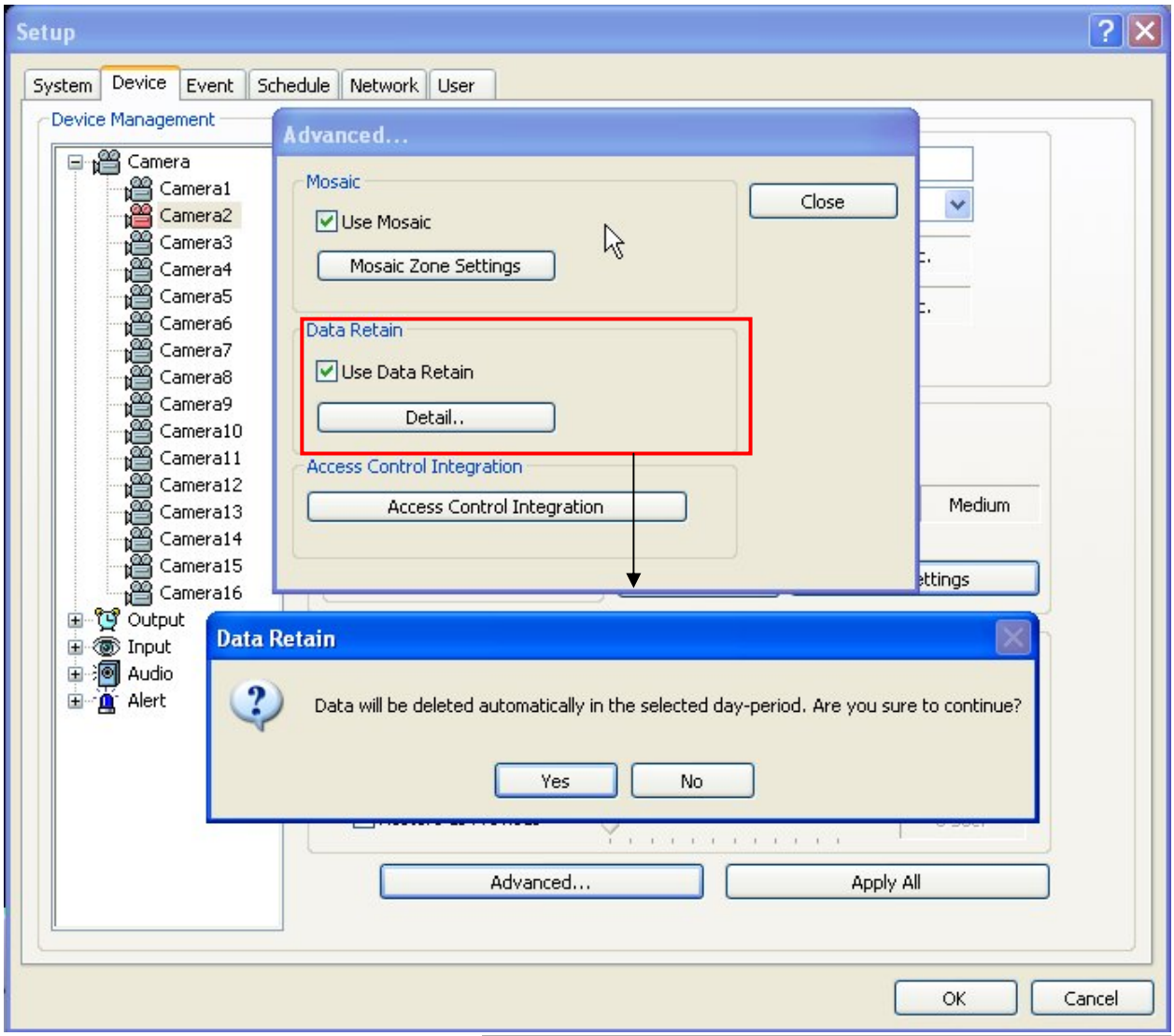
- Click on “Advanced”.
- Tick the “Use Mosaic” box.
- Click on “Mosaic Zone Settings”.
- Set “Mosaic Zone”.
- Go to the “Control Screen” and find veiled areas.

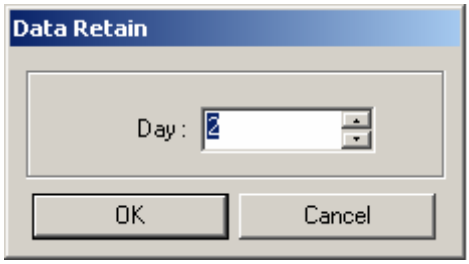
Note

1. While using Mosaic, “Save” or “Print” can not be performed.
2. To see unveiled area, logging in as “Admin” or “Admin Mode” is required.

[Data Retain]

It is a function that retains data only for the period set. For example, if 10 days is set, DVR will delete all previous data before 10 days regardless of the capacity remaining in HDD.



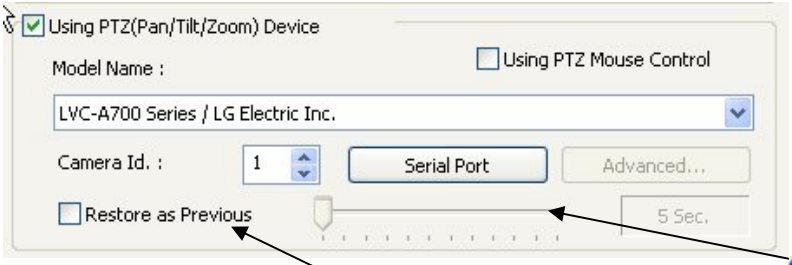


How to Set up:

- Click on “Advanced”
- Tick the “Use Data Retain”.
- Click on “Detail”. to select a day period to retain

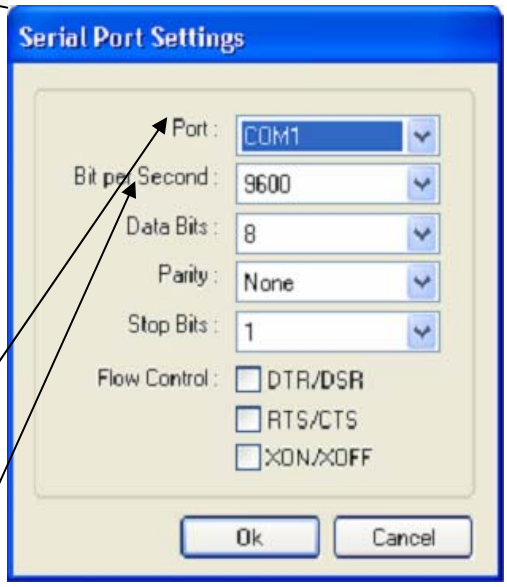
Note: Warning message to inform as above will be appeared. To continue, click on “Yes”

[PTZ Camera Setup]



When using a PTZ camera, check the box and select a model name. DVR system supports nearly 40 different protocols.

* Camera ID: Leave it as it is if only one PTZ camera is used. Otherwise, give each camera a different number.
* Restore as Previous : Tick the box and set time period to move camera back to initial position after a certain period of time.



Select the port used for PTZ camera.

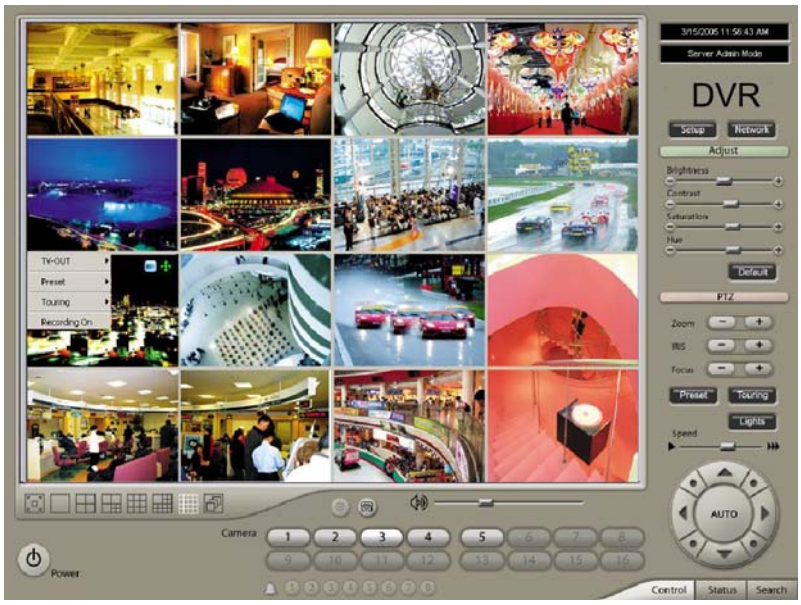
* Bit per Second: It is 9600 for most of PTZ cameras. But a few can have different values.
Refer to camera manual.

* Apply All: The same settings will be applied to the rest of the cameras by clicking on “Apply All”.

PTZ Control by Drag and Drop

How to Set Up:
1. Simply ticks “Using PTZ Mouse Control” as above and select a proper PTZ model name.
2. On a PTZ screen, drag mouse to the desired position to see.

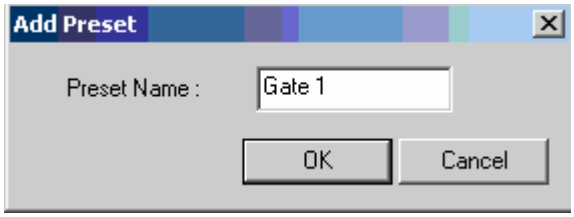
[Preset & Touring]



Either click the right mouse on camera picture or click on the Preset (Touring) button for Preset (Touring) setup and use.

[Preset]

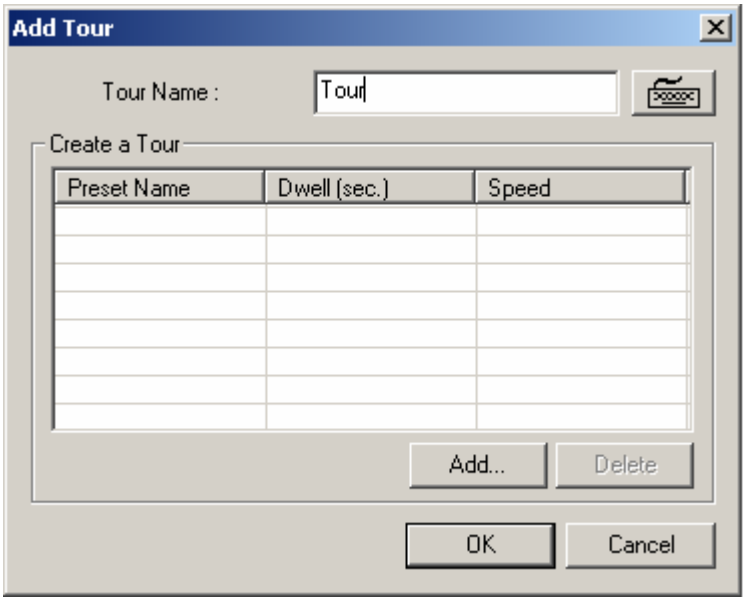
"Preset" is a function that enables a camera to move from one position to another automatically.



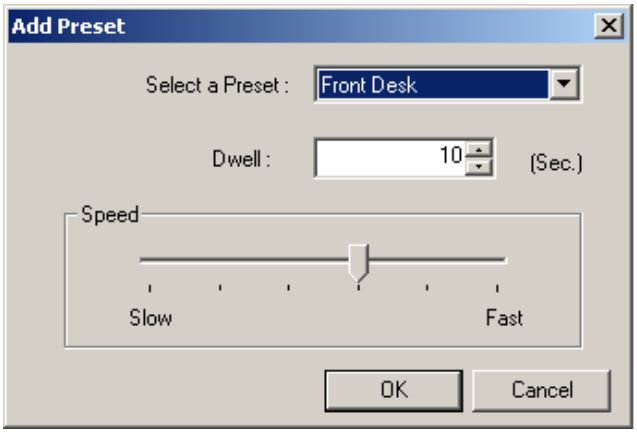
* Steps to Set up Presets *
1. Move camera to a desired position using the PTZ Control on Control screen.
2. Click the right mouse.
3. Name the preset.
4. Repeat the above for setting up as many as 256 presets.
5. Click the right mouse to run preset and click the “Auto” button to stop it.

[Touring]

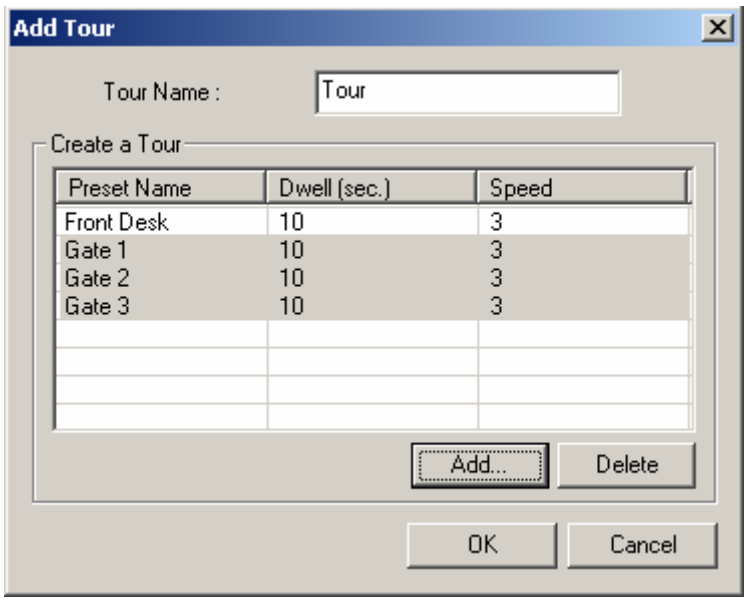
"Touring" is a function that enables a group of selected presets to work repeatedly.



* Steps to Set up a Tour *
1. Click the right mouse.
2. Name the tour.
3. Click on "Add".
4. Select a preset.
5. Click "OK".
6. Repeat the above to have more than 1 preset in the tour.
7. Click the right mouse to run the tour.



* Dwell: The length of time that camera will pause before moving to the next preset.
* Speed: Moving speed for selected preset.

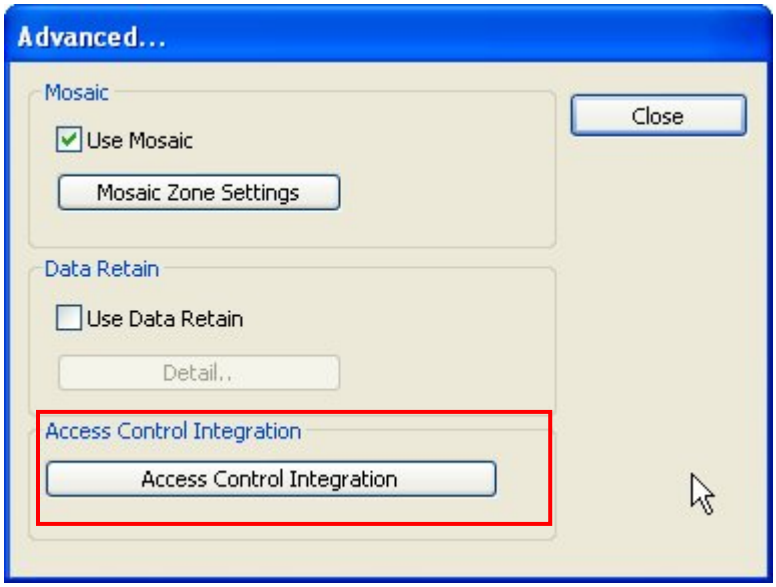

Add Tour
Tour Name :
Tour
Create a Tour
Preset Name
Dwell (sec.)
Speed
Front Desk 10 3
Gate 1 10 3
Gate 2 10 3
Gate 3 10 3
Add...
Delete
OK
Cancel

3/15/2005 11:56:43 AM
Server Admin Mode
DVR
Setup
Network
Adjust
Brightness
Contrast
Saturation
Hue
Default
PTZ
Zoom
IRIS
Focus
Preset
Touring
Lights
Speed
AUTO
TV-OUT
Preset
Touring
Recording On
Run (Tour)
Stop Touring
Add Tour...
Delete Tour
Camera
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
Power
Control
Status
Search

Advanced PTZ setup can be done by one right mouse click. Make sure that the PTZ camera to set up supports advanced PTZ control functions first.

[Access Control]

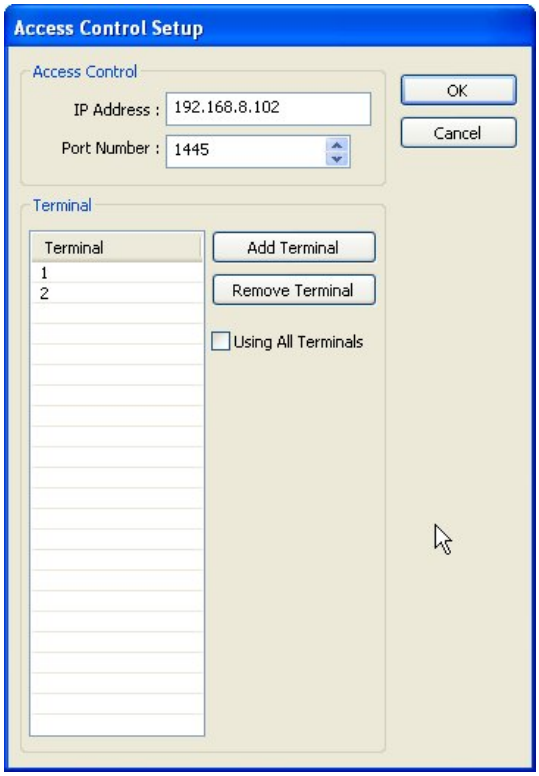
It is a function that integrates Access Control into DVR system.
For Access control DVR, please refer to another document “Access control DVR”.



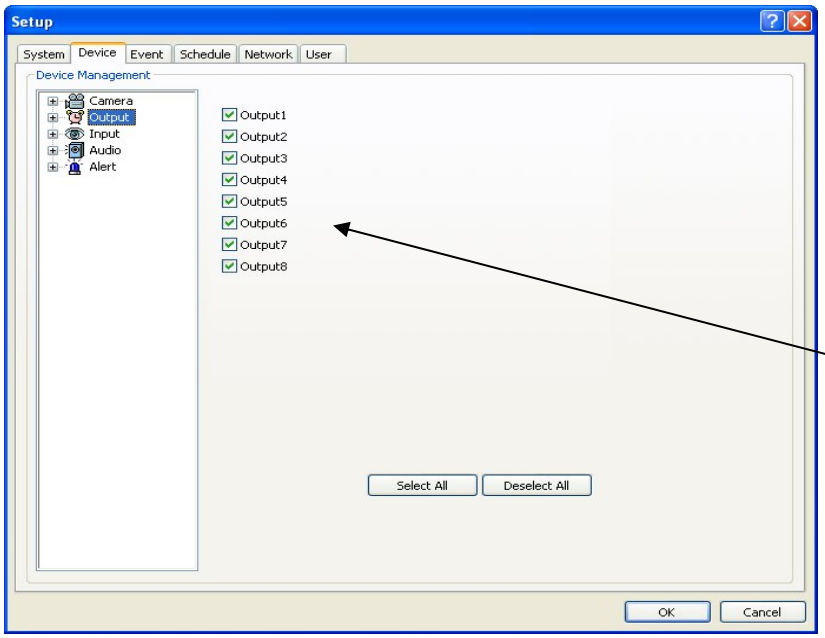
How to Set up:

- Click on “Advanced”
- Click on “Access Control Integration”
- Type in “IP Address” and Port Number of access control connected PC.

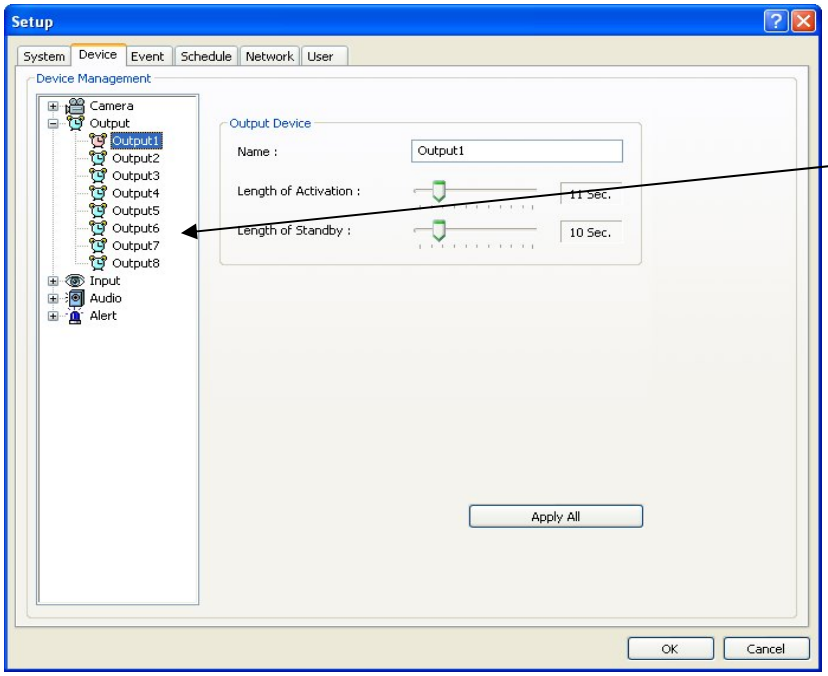
Note: For more information about Access Control Integration, refer to the appendix 4, please.



3.6.2.2 Output Device



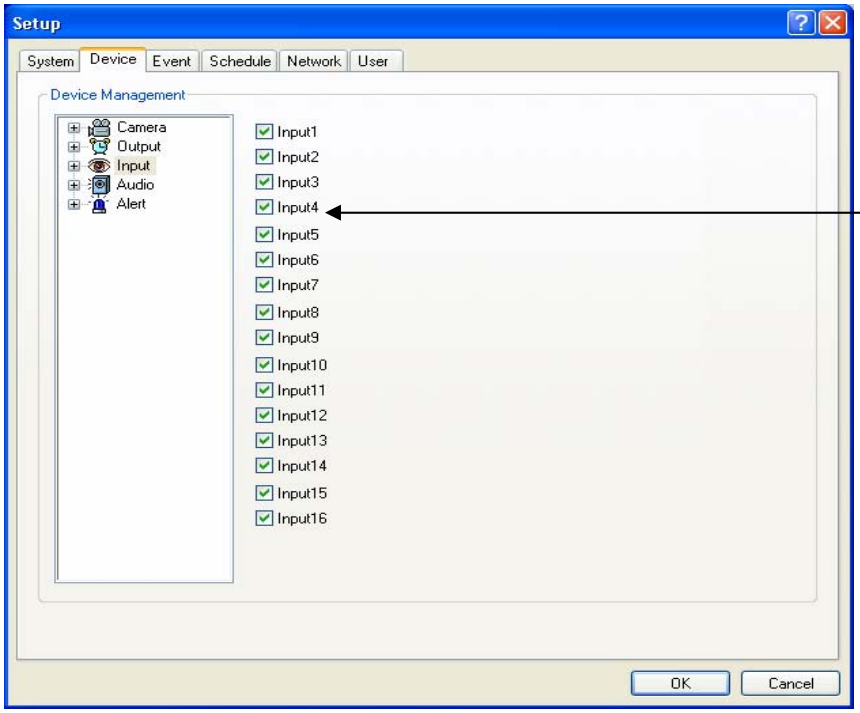
DVR system can be equipped with as many as 8 output devices. Simply check the boxes for use. In addition, outputs can be manually activated from Control screen (Manual Alarm).



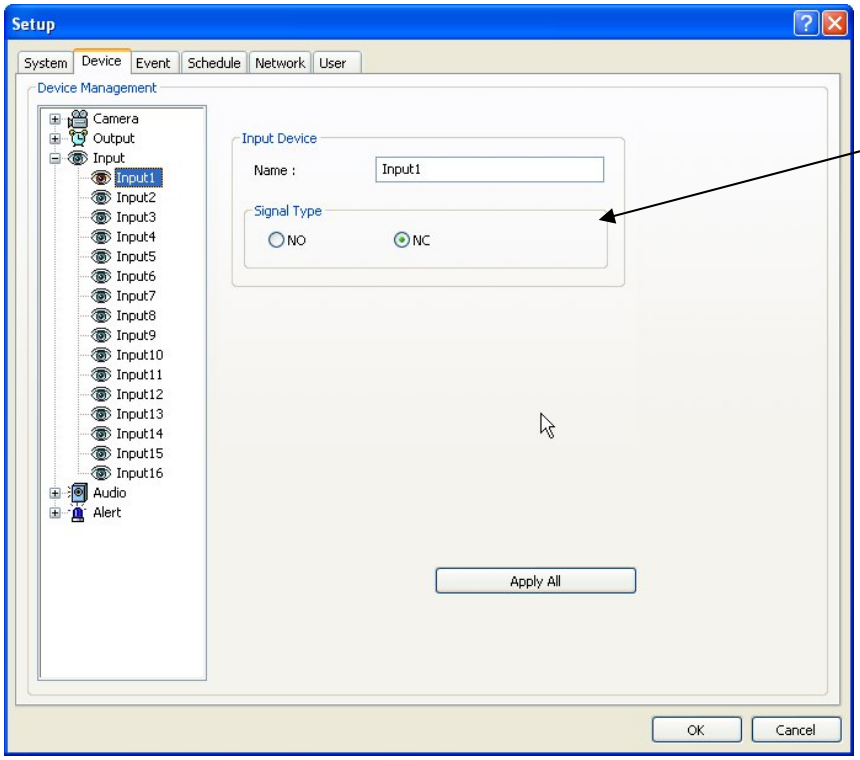
Double-click on “Output” for individual output setup.

* Name: Output device name.
* Length of Activation: The length of output activation (1-60 sec.).
* Length of Standby: The length of output deactivation until reactivation (0-60 sec.).
* Apply All: The same settings will be applied to the rest of the output devices.

3.6.2.3 Input Device

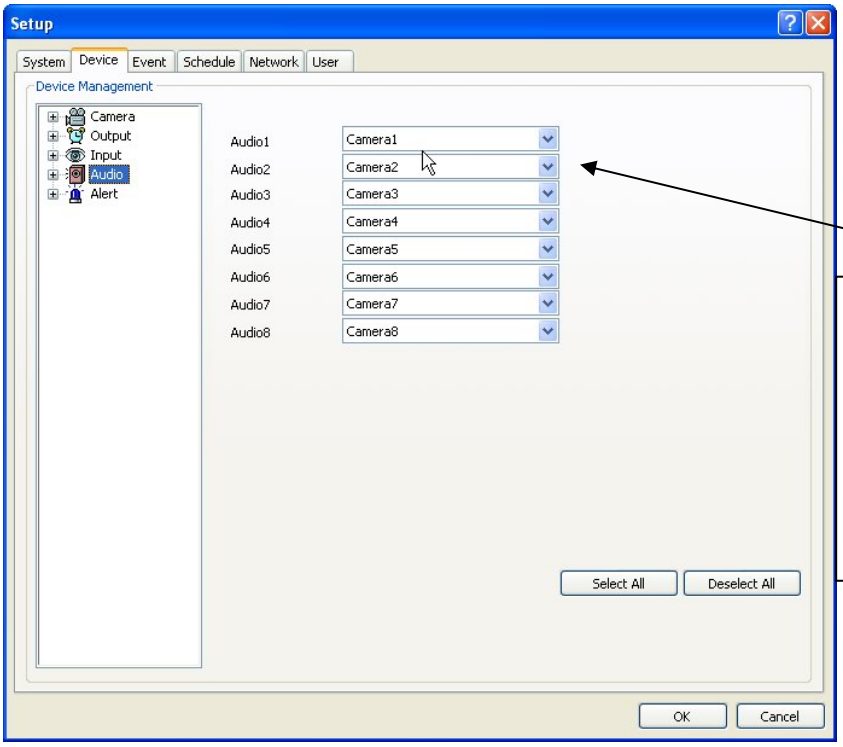


DVR system can be equipped with as many as 16 input devices. Simply check the boxes for use.

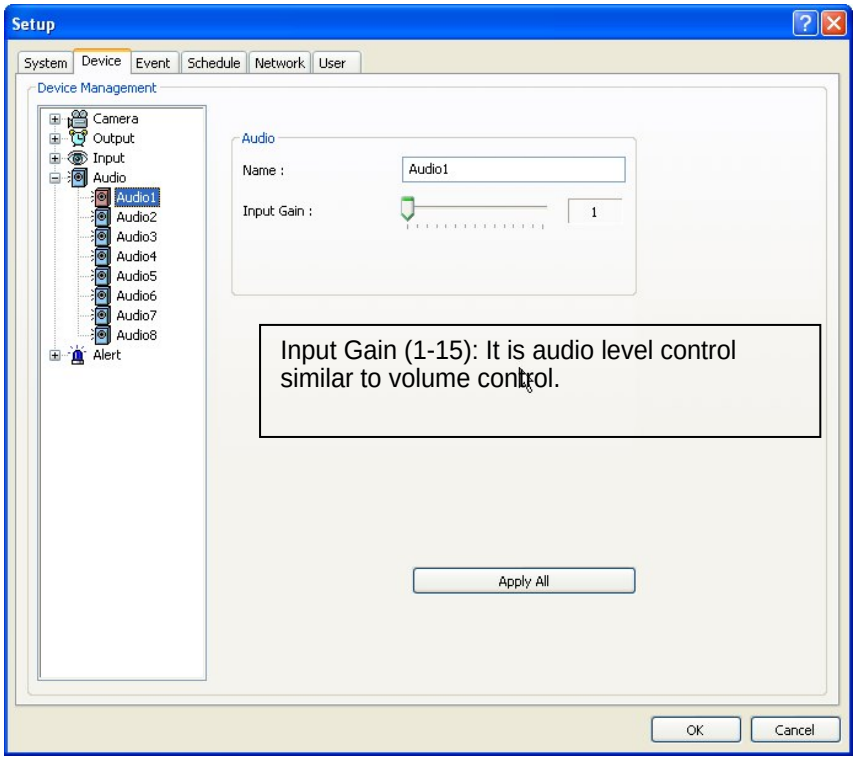


Each and every input can be tuned independently.
Signal Types:
NO(+) & (-) detached normally
NC(+) & (-) attached normally

3.6.2.4 Audio

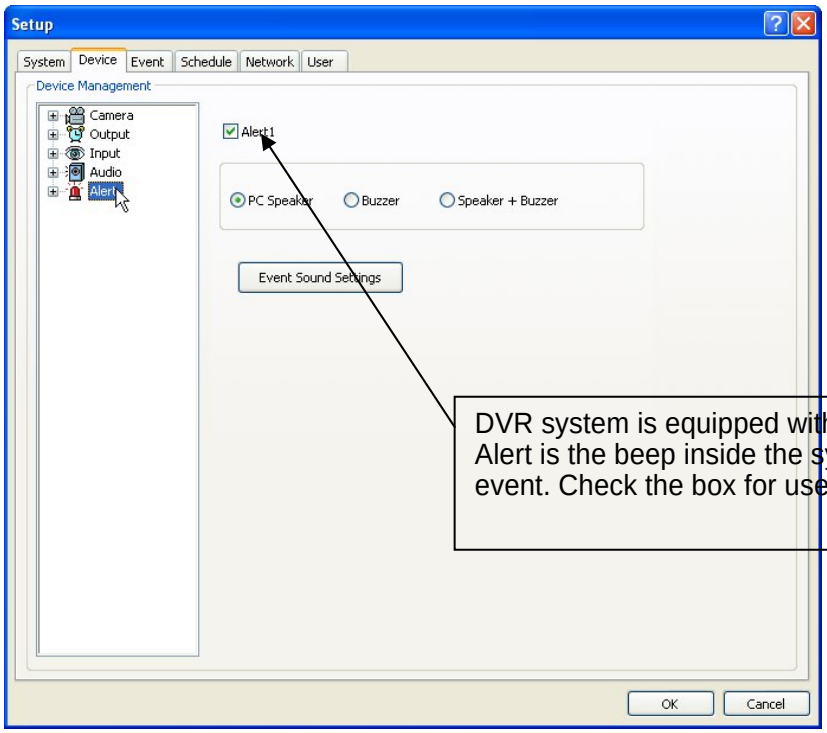


DVR system is equipped with as many as 8 audio channels.
Simply connect cameras to audio channels for use, and audio recording will be completed as chosen.
(e.g.) The above selections indicate that Audio2 will record Camera3, Audio3 will record Camera5, etc.

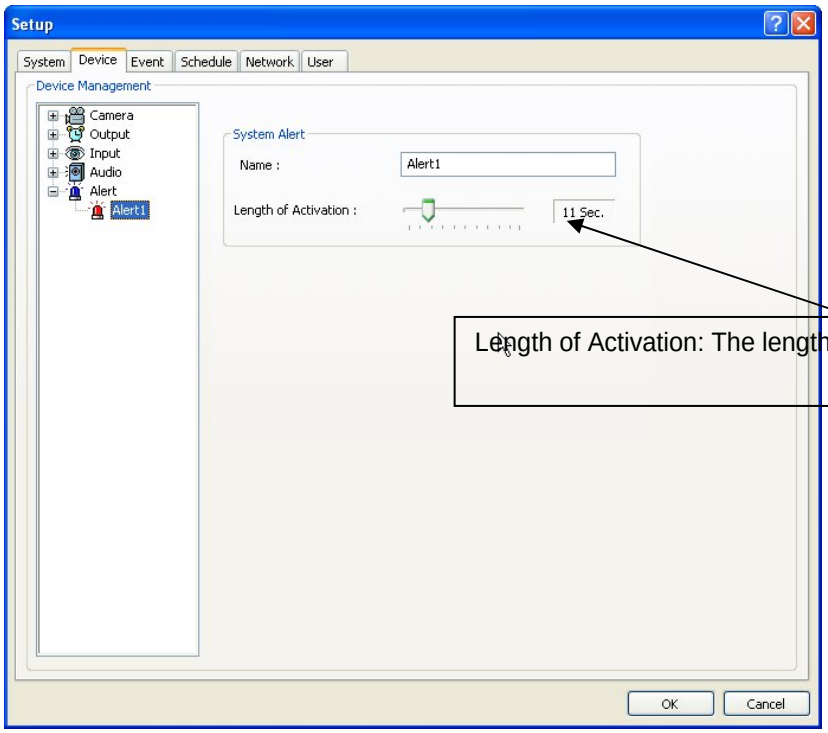


Input Gain (1-15): It is audio level control similar to volume control.

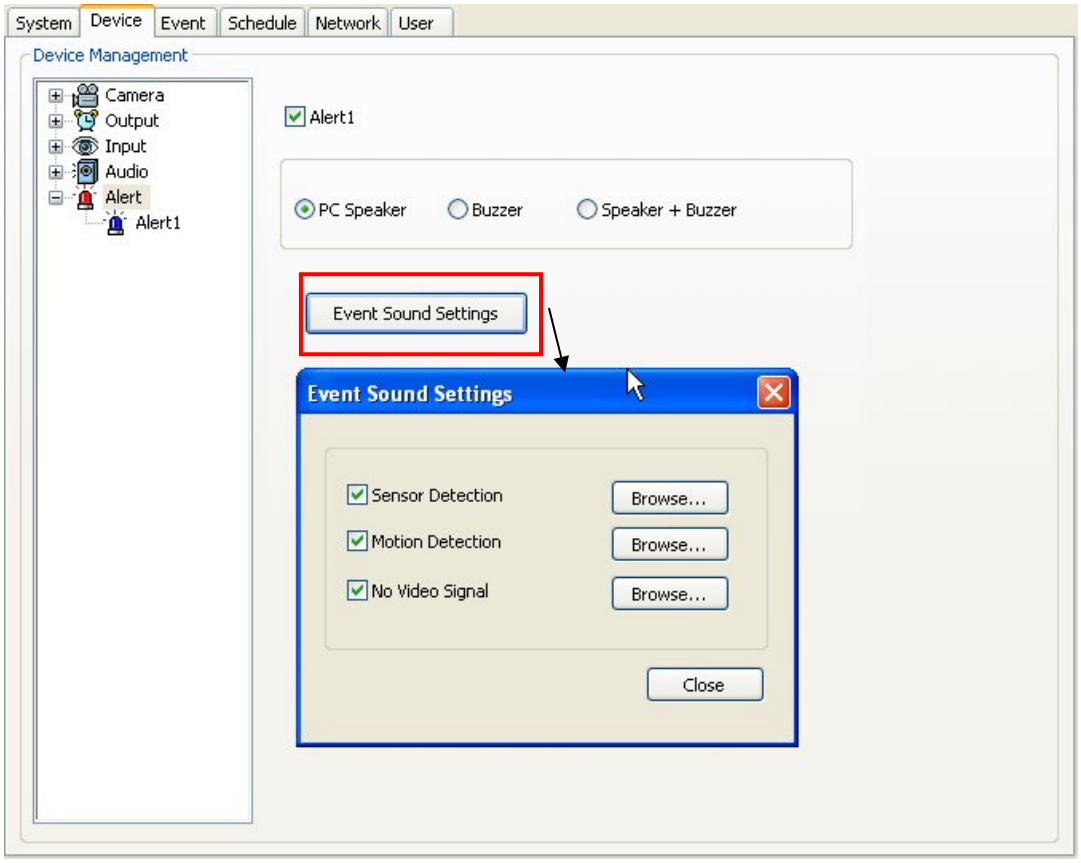
3.6.2.5 Alert



DVR system is equipped with 1 alert device.
Alert is the beep inside the system that sounds in the case of event. Check the box for use and select an alert mode.



Length of Activation: The length of alert activation (1-60 sec.).

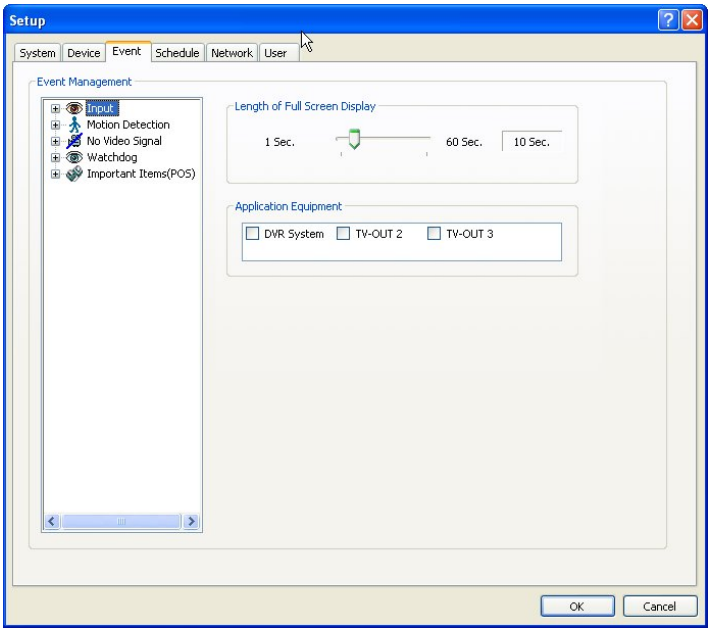


*Event Sound Settings:
To differentiate alert sound by Events (Sensor, Motion, and No video Signal), select a Wave File for each.

3.6.3 Event

"Event" consists of 3 different groups; "Input", "Motion Detection" and "No Video Signal". On this menu, devices can be set to respond to different events.

3.6.3.1 Input

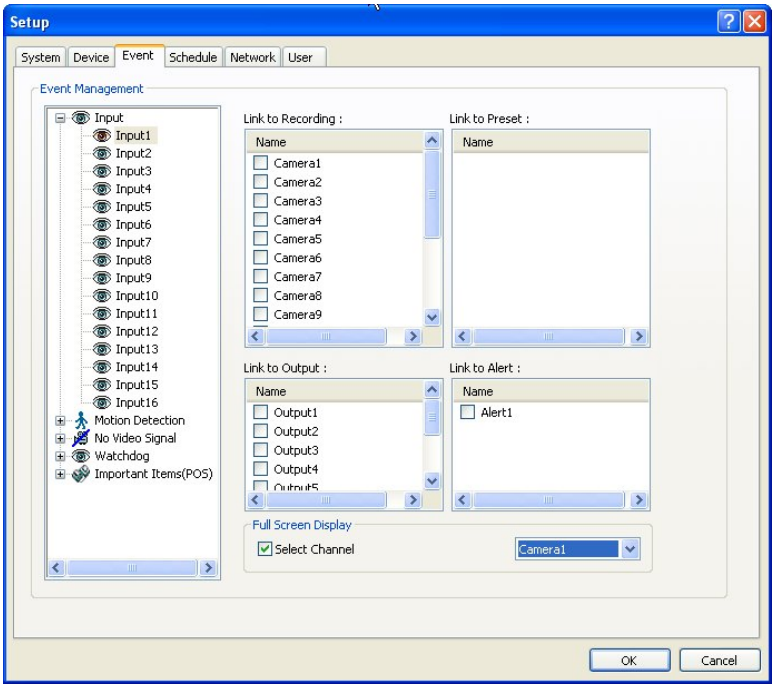


* Length of Full Screen Display:
The time length for full screen display in the case of input device activation.

* Full Screen Display Channels: Full Screen Display
: Selected camera channel will pop up if the linked input device is triggered.

The equipment of application:
Events triggered by Input or Motion detection can pop on a desired screen among DVR system/ DVR+TV-OUT1/TV-OUT2/TV-OUT3.

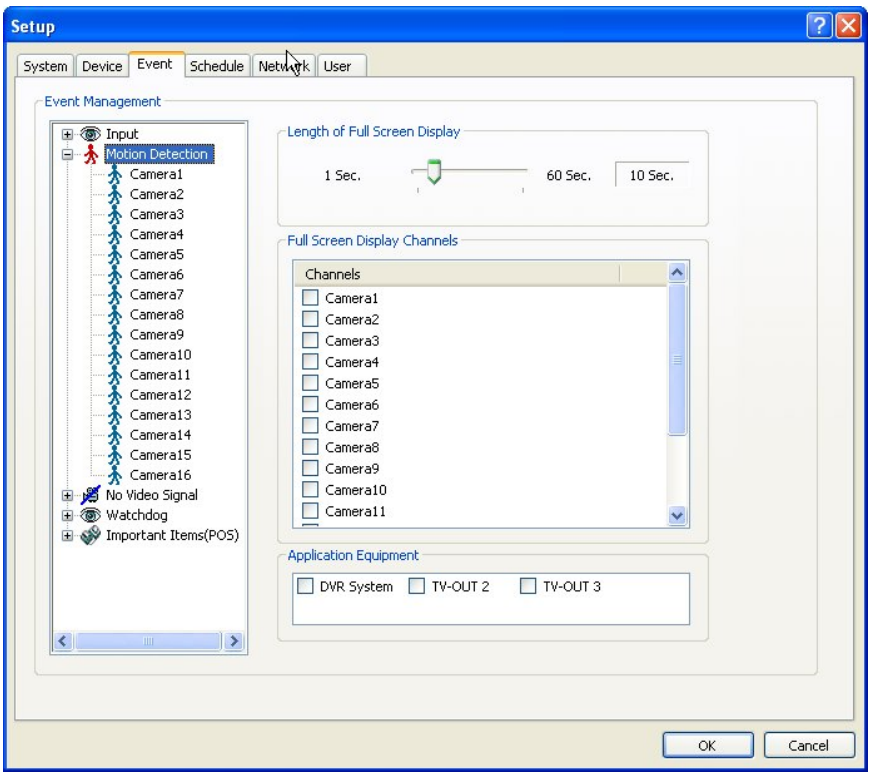
* Link to Recording: One Input device can have as many as 16 recording cameras on activation. The below example shows that Camera1 will record in the case of Input1 activation.

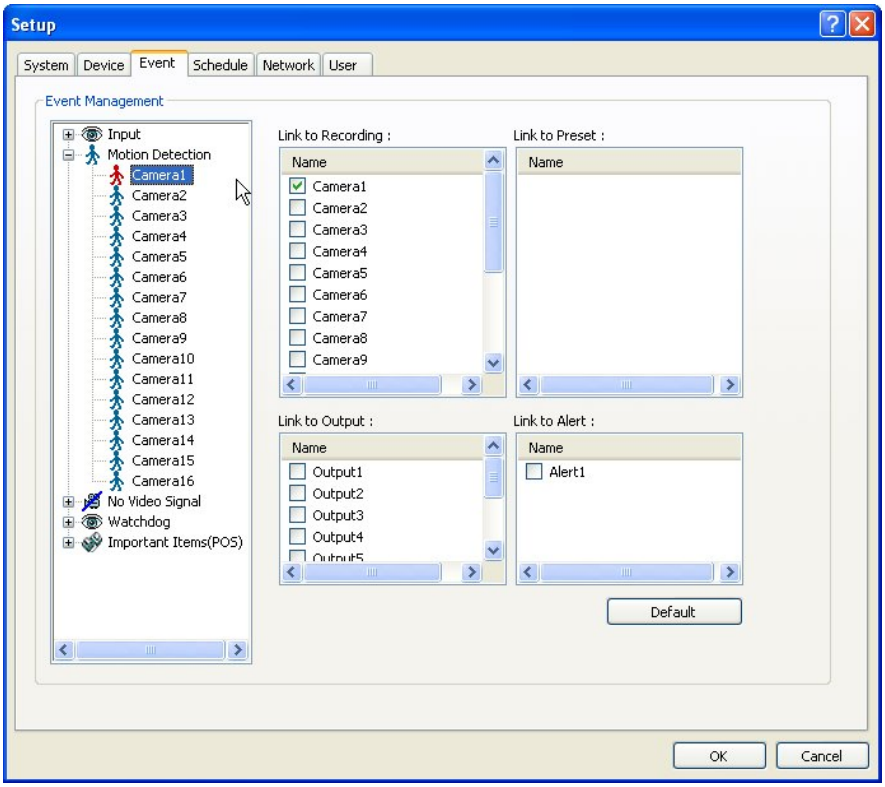


* Link to Output: One Input device can have as many as 8 activating output devices on activation. The above example shows that Output1 will be activated in the case of Input1 activation.
* Link to Alert: Input device can also be linked to alert.

3.6.3.2 Motion Detection

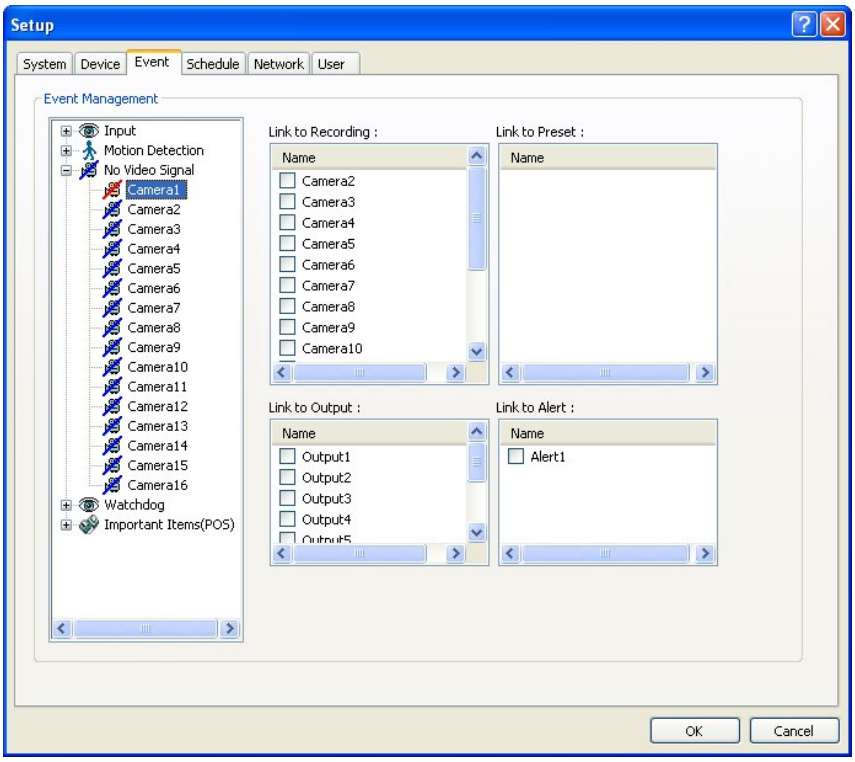
The same identical concepts and methods as “Input” are applied to “Motion Detection”.





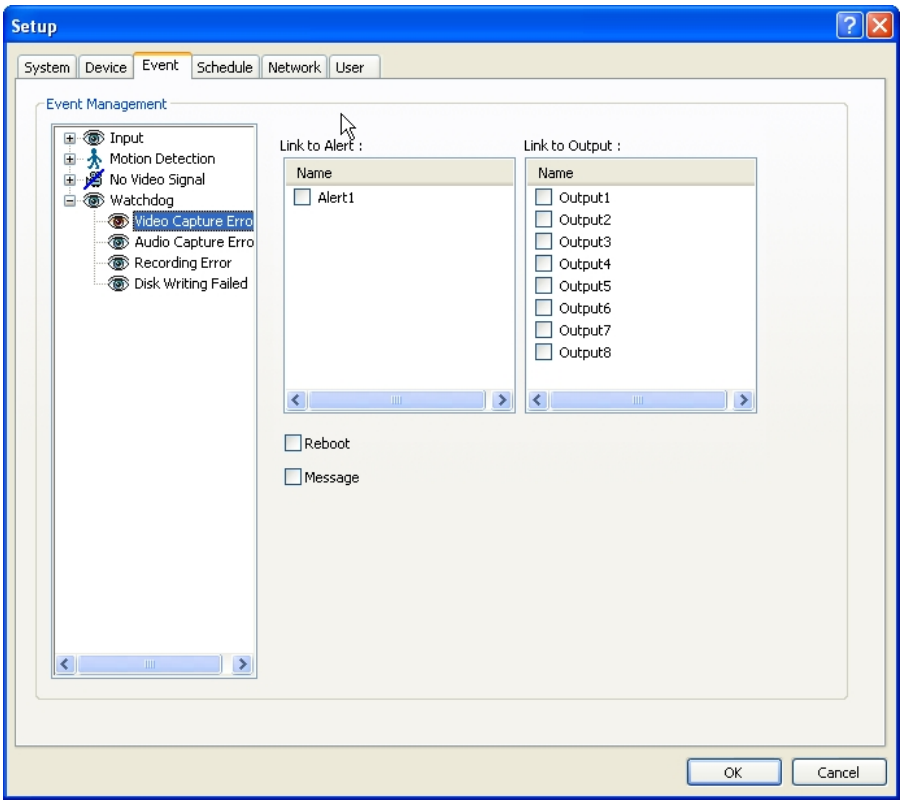
3.6.3.3 No Video Signal

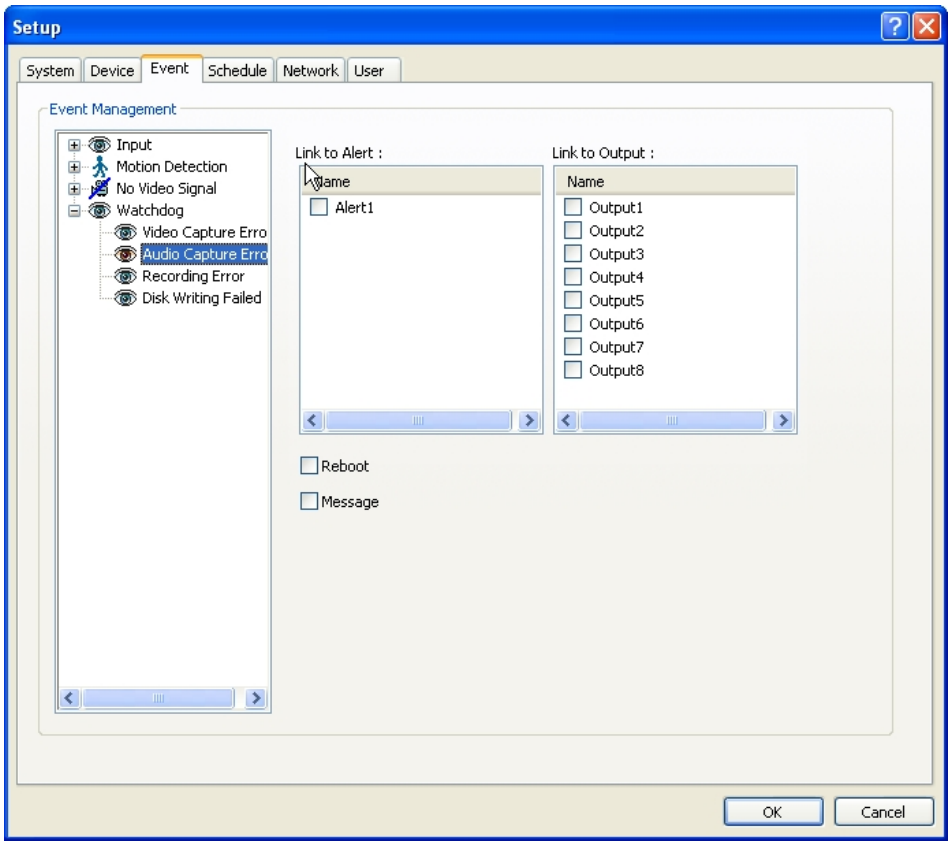
The same identical concepts and methods as “Input” are applied to “No Video Signal”.



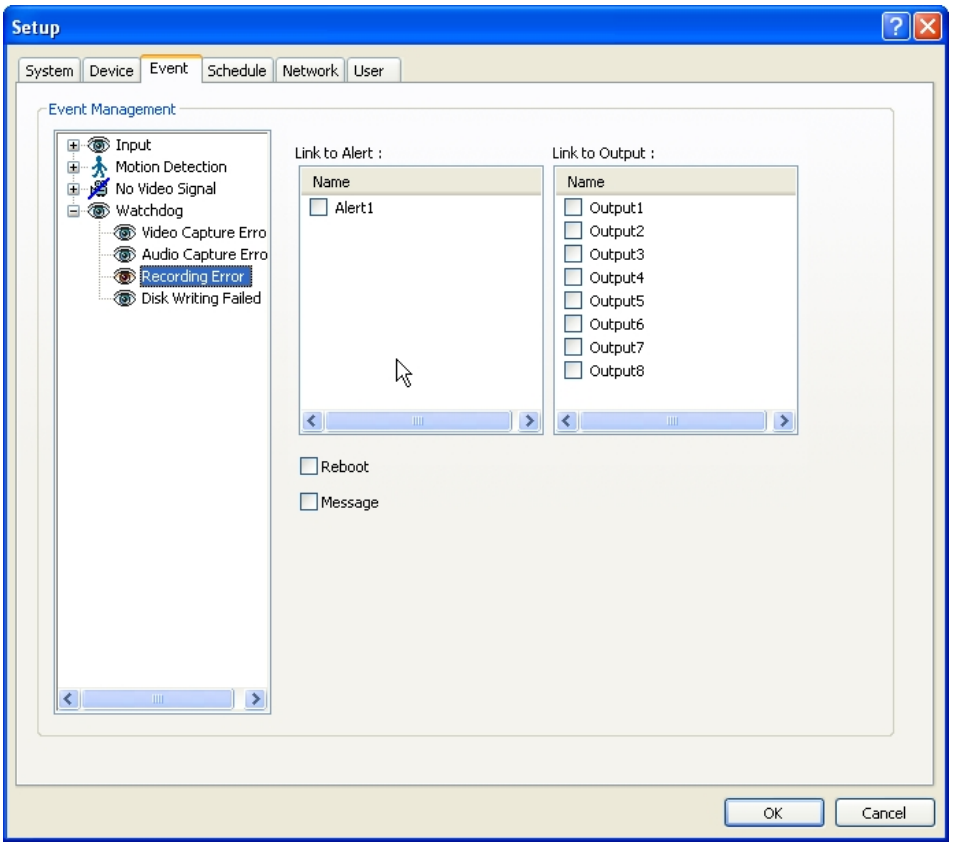
3.6.3.4 Watchdog

The same identical concepts and methods as “Input” are applied to “Watchdog”. When “Video Capture Error” is occurred, it is linking to Alert and Output. User can link the event to Reboot, Message on DVR.

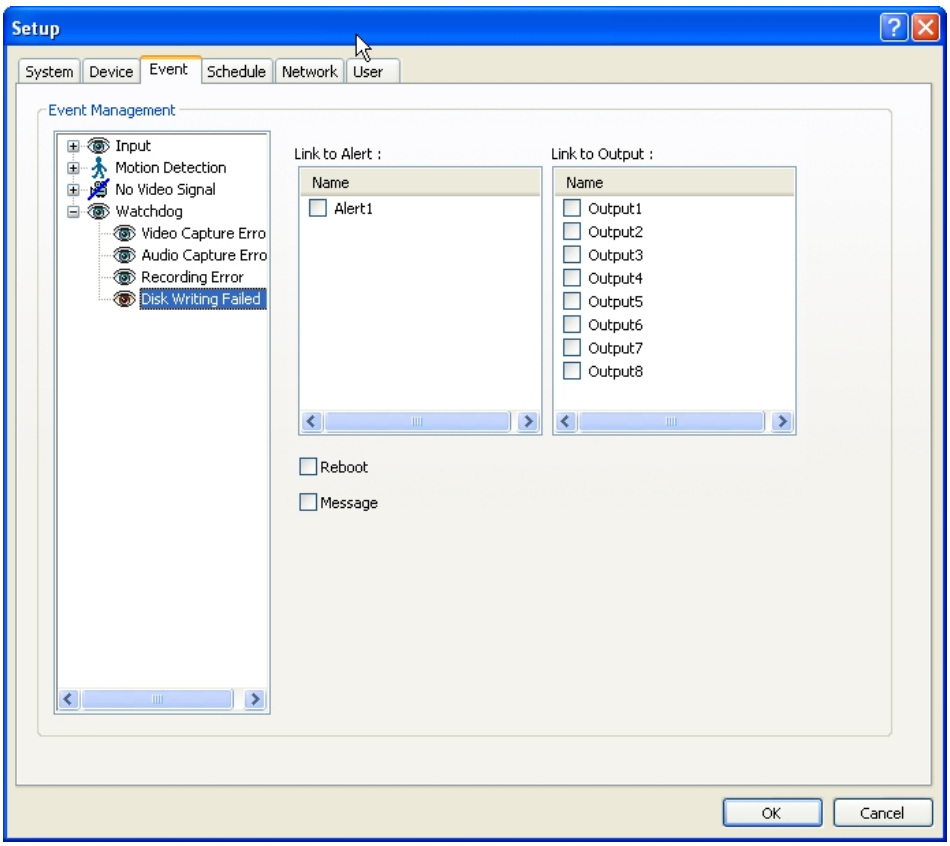




The same identical concepts and methods as “Input” are applied to “Audio Capture Error”.
When “Audio Capture Error” is occurred, it is linking to Alert and Output. User can link the event to Reboot, Message on DVR.



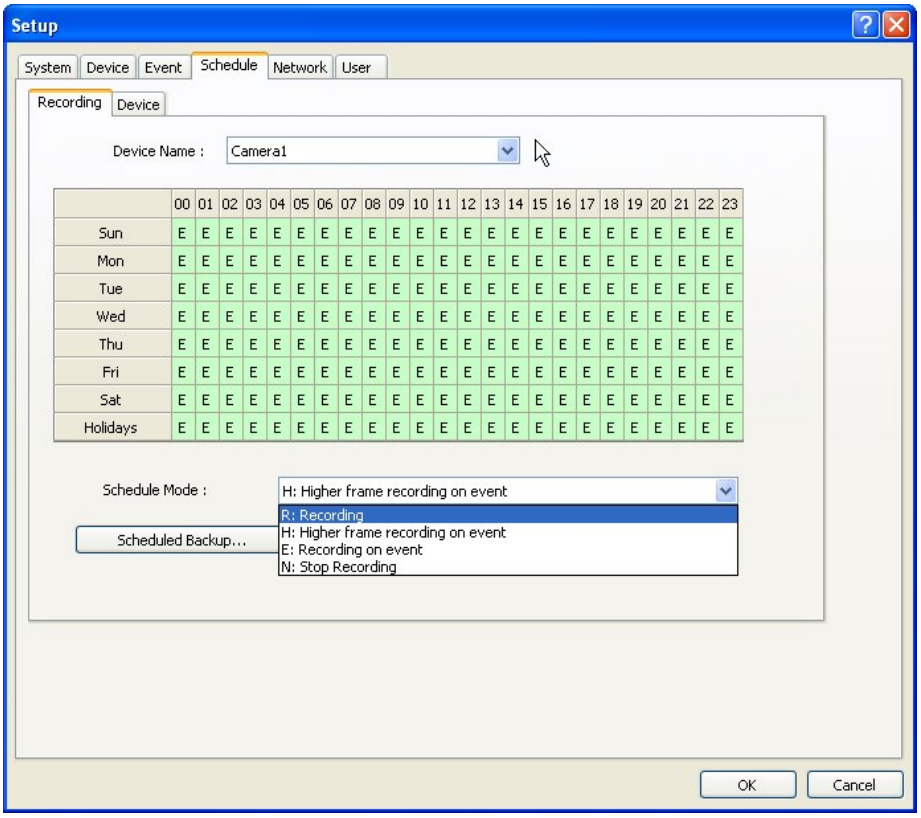
The same identical concepts and methods as “Input” are applied to “Recording Error”.
When “Recording Error” is occurred, it is linking to Alert and Output. User can link the event to Reboot, Message on DVR.



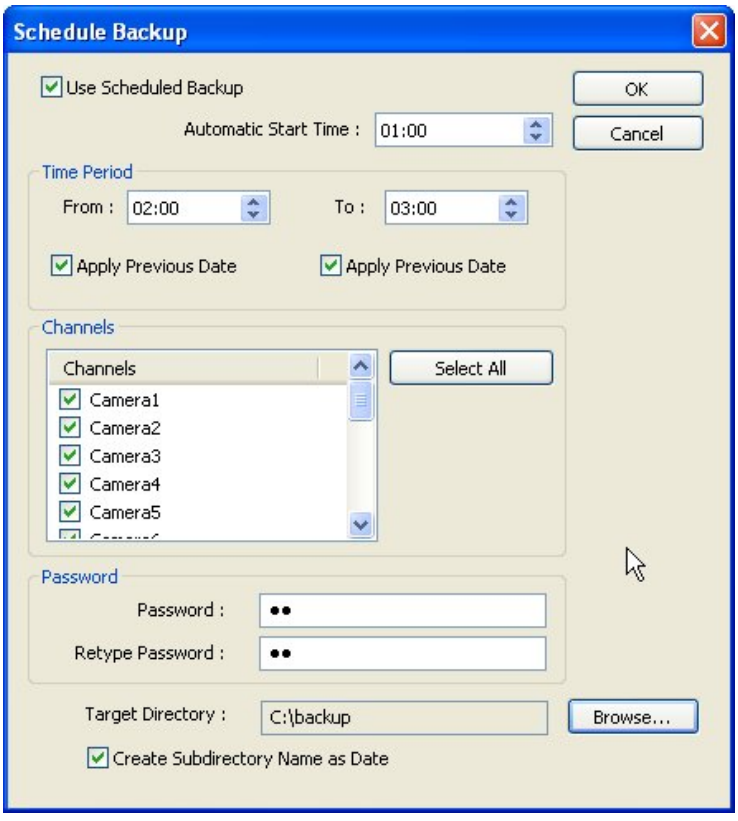
The same identical concepts and methods as “Input” are applied to “Recording Error”.
When “Disk Writing Failed” is occurred, it is linking to Alert and Output. User can link the event to Reboot, Message on DVR.

3.6.4 Schedule

"Schedule" is a place where the different activities of different devices are determined.



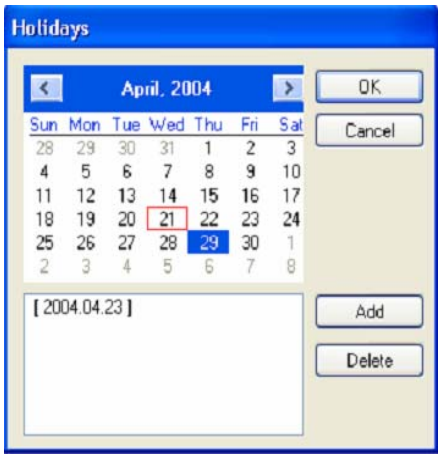
Each camera can have different recording options; scheduled recording by time & day and selective recording.
* R: Recording at all times
* E: Recording on event
* N: Stop recording
* H: Recording at all times and higher frame recording on event



* Use Scheduled Backup: To set backup automatically.

Please refer to next to example.
* Automatic Start Time: At 1 a.m. it Automatically starts back up.

Time Period
* From: When "Apply Previous Date" is checked, 2 a.m. means yesterday. If not, it is coming 2 a. m.
* To: Same concept as "From".
* Channel: Cameras wish to backup.
* Select All: Select all cameras
* Password: Give password to play back back up data.
* Retype Password: Retype password to double confirm.
* Target Directory: Selects directory to backup.
* Create Subdirectory Name as Date: Gives created directory name based on the date.



The holiday recording schedule set at the bottom of the "Schedule" table will be applied to selected dates.

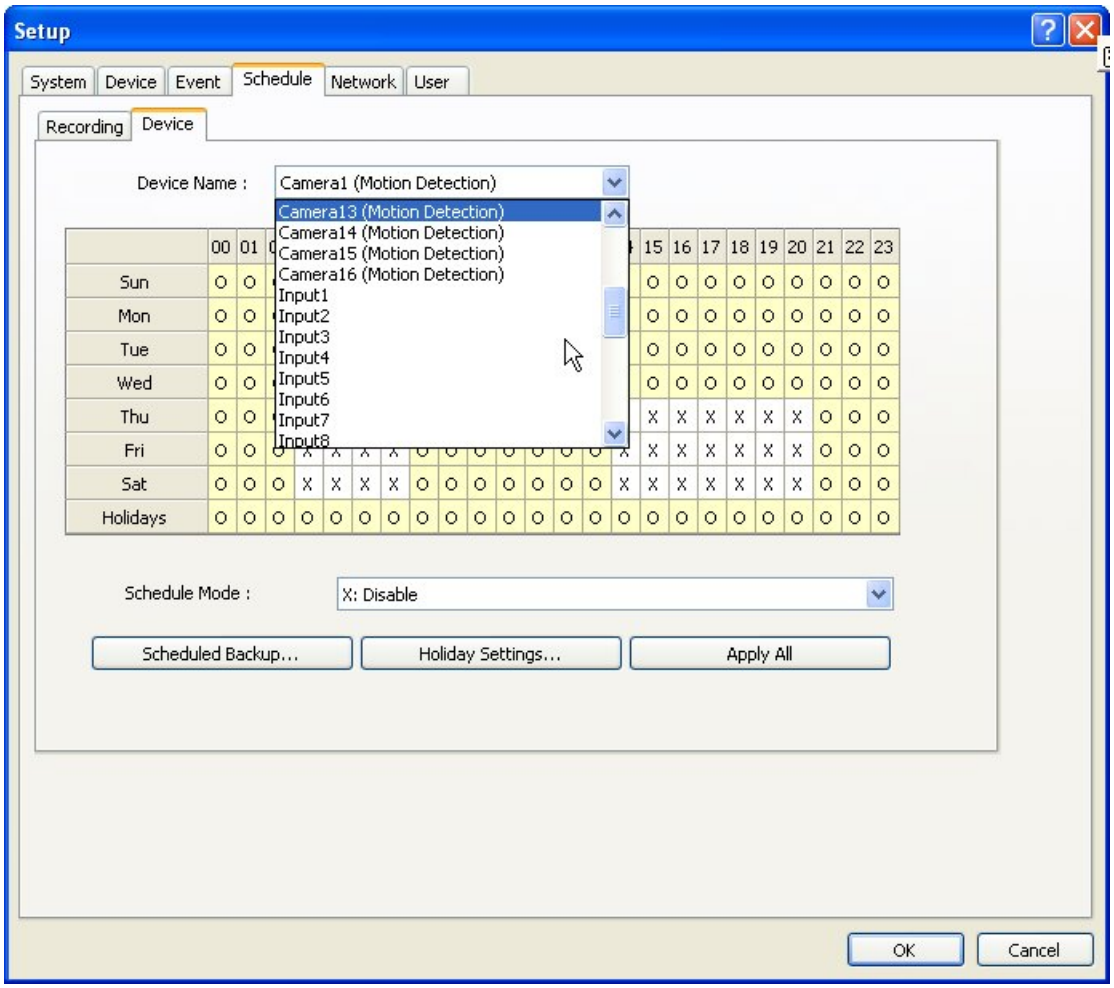
3.6.4.1 Recording [Manual (Instant) Recording]

It is a function that enables users to react on an emergency situation properly by making DVR start recording immediately.

Start "Manual Recording" by selecting "Recording On". Stop "Manual Recording" by selecting "Recording Off".

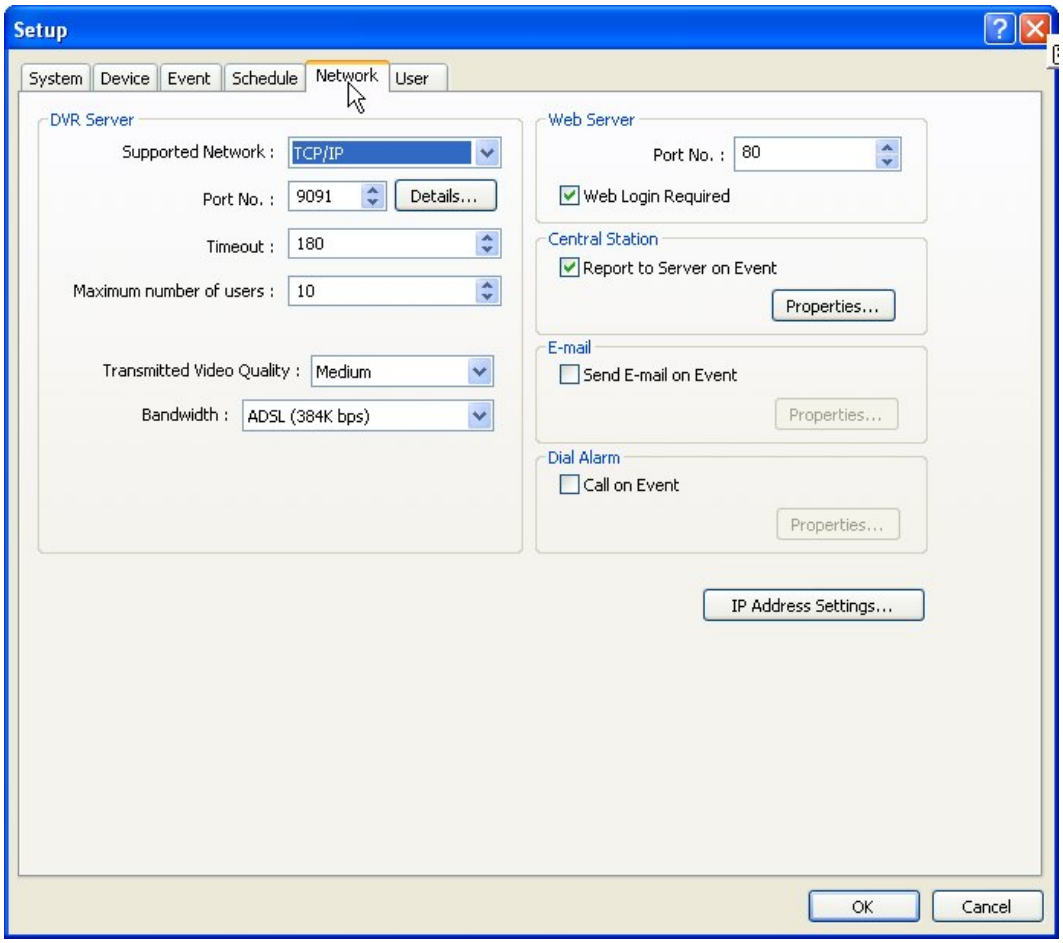
Note : 1. The purple icon indicates that it is on "Manual Recording".
2. Only 'Admin' can use "Manual recording".

3.6.4.2 Device

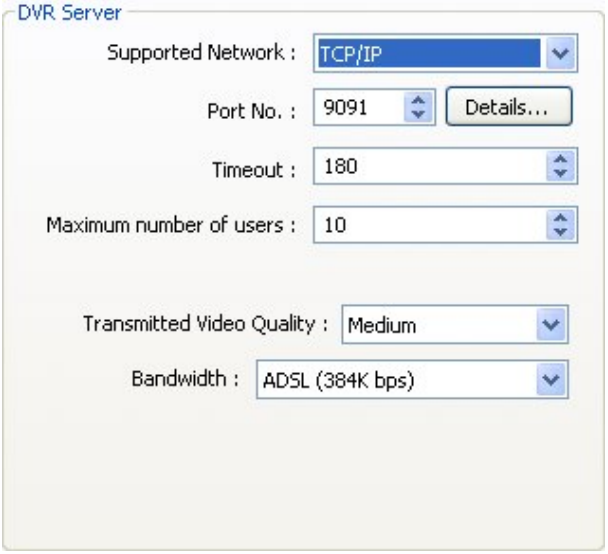


Select detailed schedule for recording on motion detection.

3.6.5 Network



3.6.5.1 DVR Server



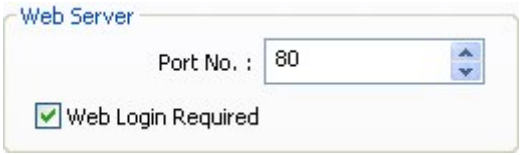
* Supported Network:

1. TCP/IP - Connecting to DVR Server from Client using Lan or DSL
2. PSTN - Connecting to DVR Server from Client using PSTN or ISDN modem
3. None - Not allowed to connect to DVR Server remotely

* Port No.: The default port number is 9091.
* Timeout: The time length of trials to connect to DVR Server from Client
* Maximum Number of Users: The maximum number of users that can be logged in remotely.
* Details: It shows all the port numbers that are available to use.

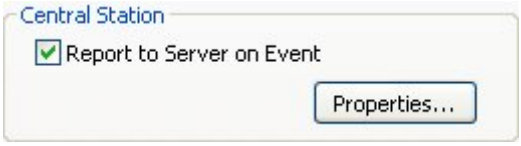
* Transmitted Video Quality: Video quality to be transmitted to Client.
As a reminder, the higher video quality gets, the slower network transmission speed becomes. Therefore, it is often recommended to select low video quality when using “Narrowband”.
* Bandwidth: Make sure to select the right bandwidth to have the right network performance.

3.6.5.2 Web Server

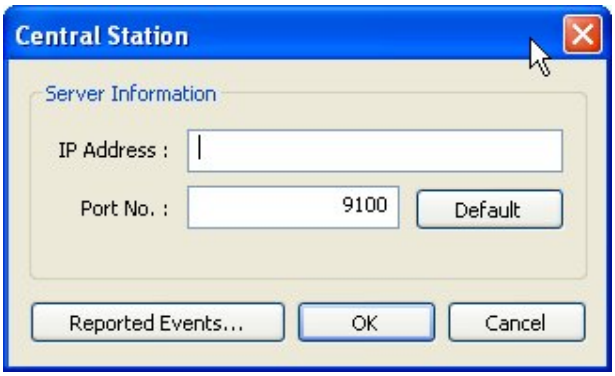


* Port No.: Fixed HTTP Port No.
* Web Login Required: If the box is checked, login is required when connecting to DVR server using web browser. If the box is NOT checked, automatic login as “anonymous” will be done.

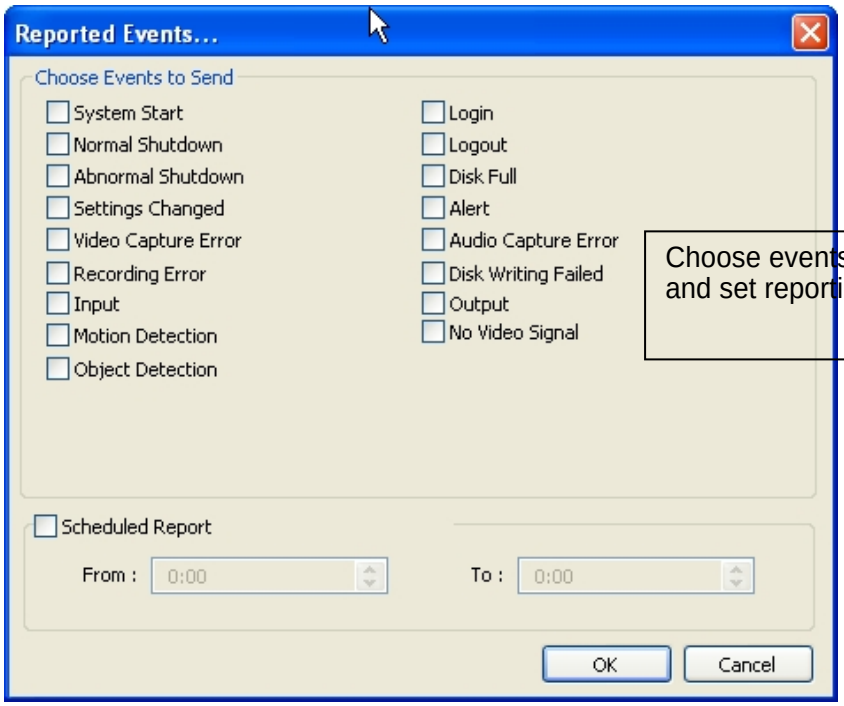
3.6.5.3 Central Station



“Central Station” is a function that enables Client with static IP to manage multi DVR sites. Check the box and click on “Properties” for setup.
* Note: “DVR Manager” must be installed on Central Station Server (Client). For more details, refer to Appendix 3.

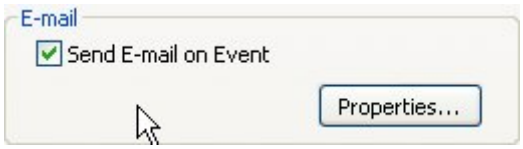


Type in the IP address of Central Station Server (Client with Static IP) and click on “Reported Events” for more setup.



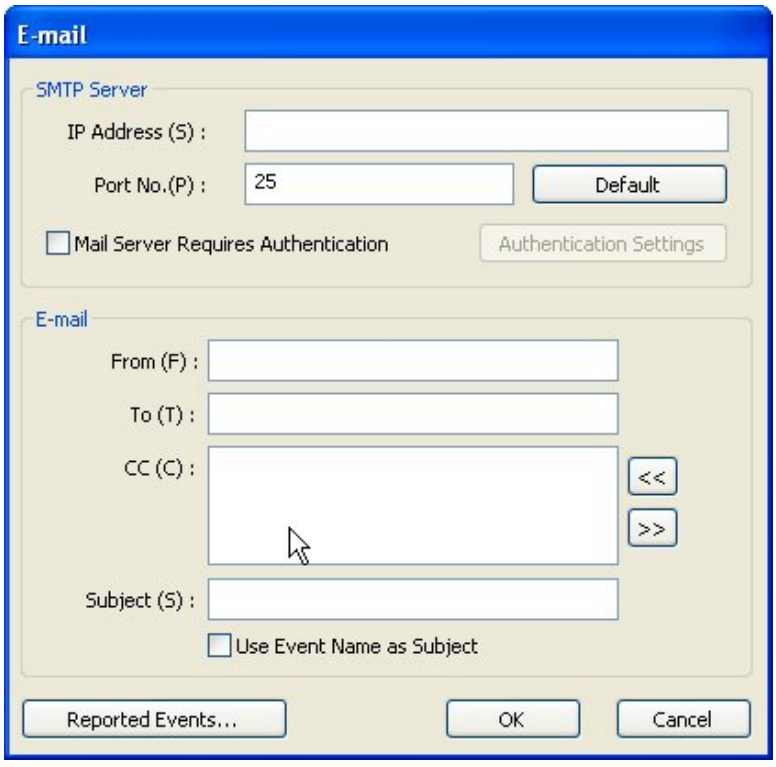
Choose events to report to Central Station server and set reporting time period.

3.6.5.4 E-mail

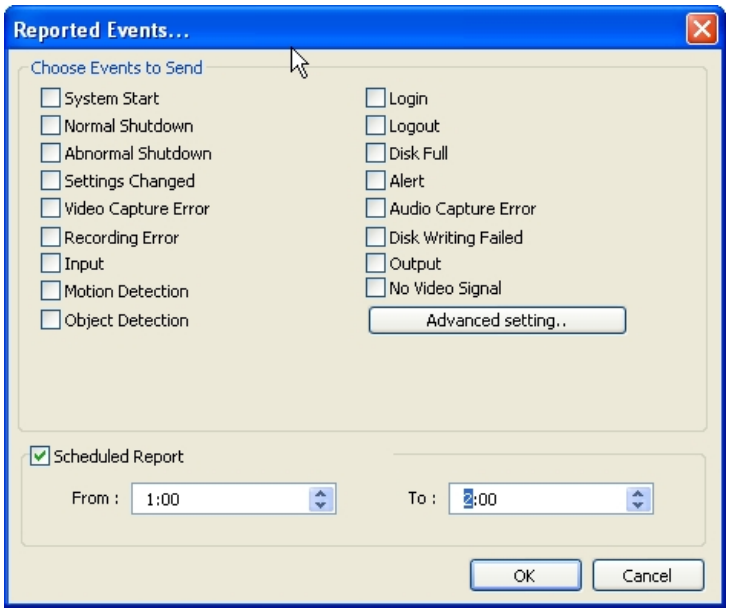


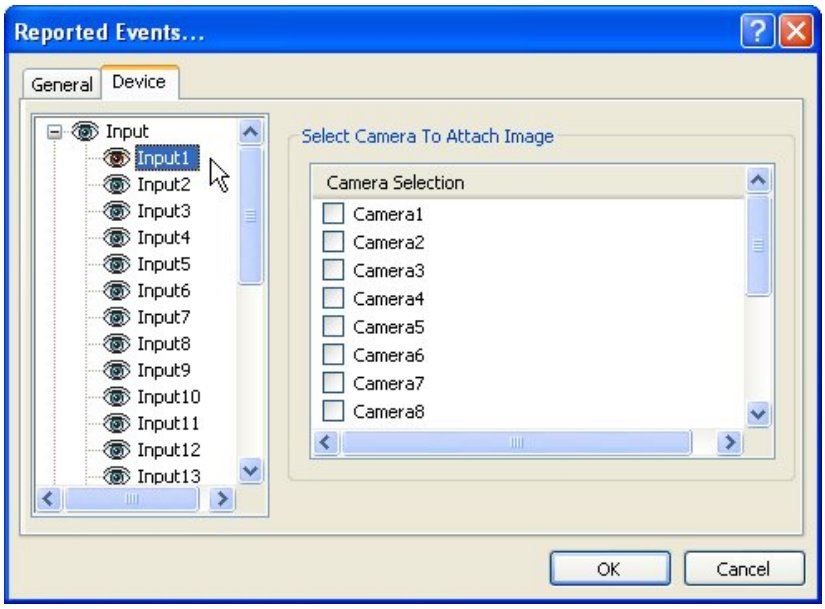
E-mail is a function that enables DVR system to send out e-mails when selected events occur. Check the box and click on “Properties” for setup.

Note : Some e-mail servers may require authentication for ID and PW.

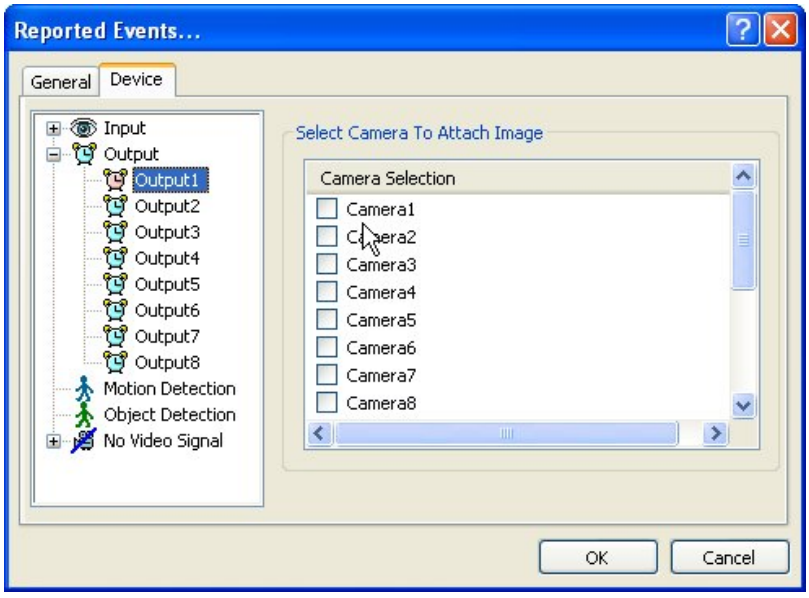


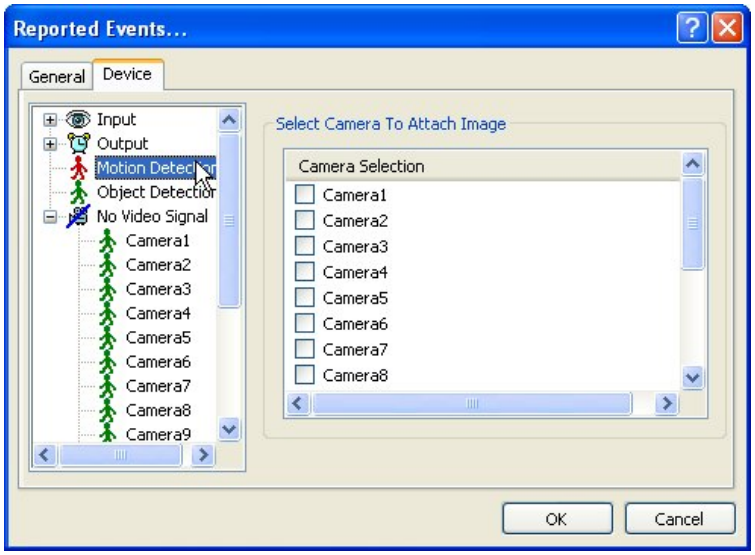
Make sure to put in the right IP address of SMTP server. Then, click on “Reported Events” for more setup. The “Reported Events” menu is the same as Central Station.

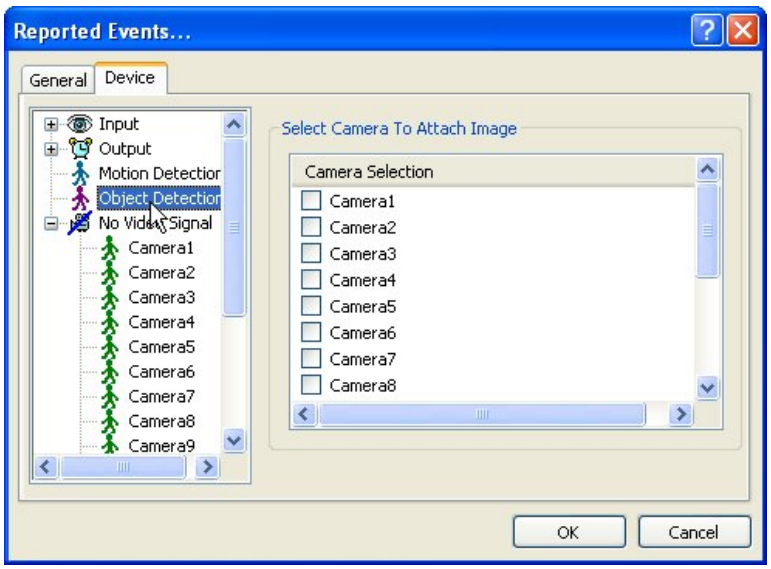


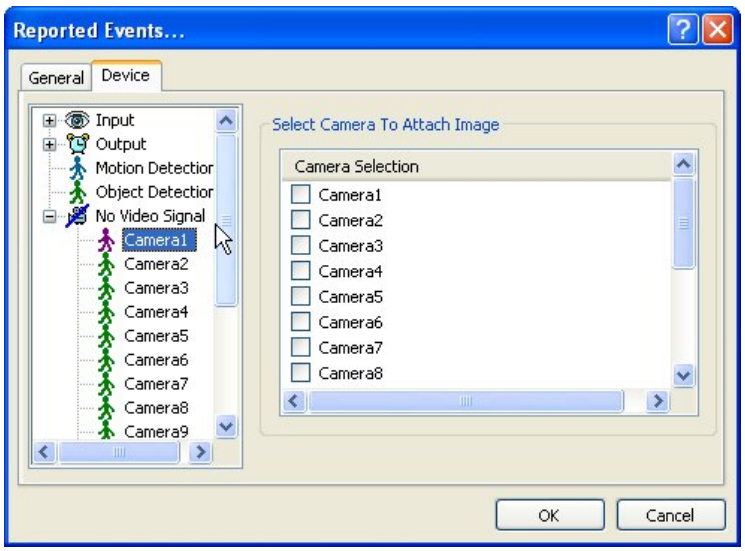


Send camera(s) to send out image(s) when the event occurs.



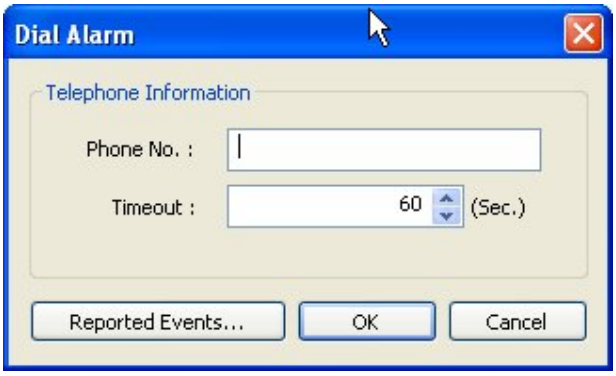

Reported Events...
General
Device
Input
Output
Motion Detection
Object Detection
No Video Signal
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
Camera9
Select Camera To Attach Image
Camera Selection
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
OK
Cancel

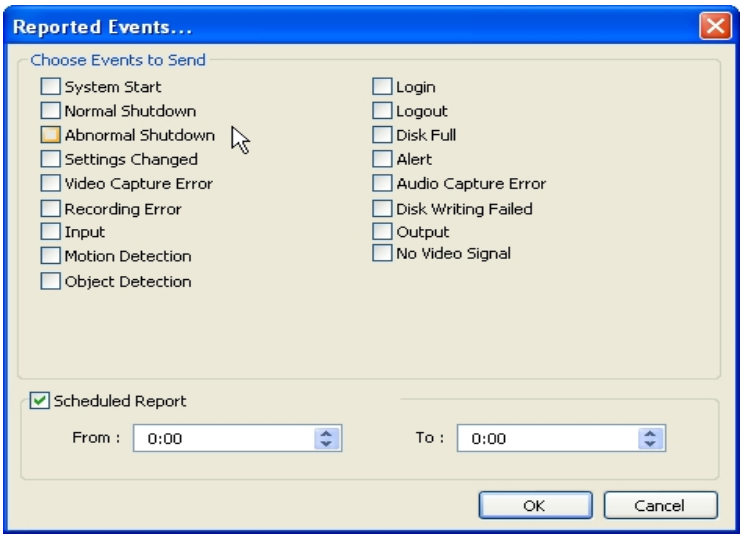

Reported Events...
General
Device
Input
Output
Motion Detection
Object Detection
No Video Signal
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
Camera9
Select Camera To Attach Image
Camera Selection
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
OK
Cancel


Reported Events...
General
Device
Input
Output
Motion Detection
Object Detection
No Video Signal
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
Camera9
Select Camera To Attach Image
Camera Selection
Camera1
Camera2
Camera3
Camera4
Camera5
Camera6
Camera7
Camera8
OK
Cancel

3.6.5.5 Dial Alarm

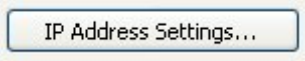
"Dial Alarm" is a function that enables DVR system to call out on selected events. Check the box and click on "Properties" for setup.

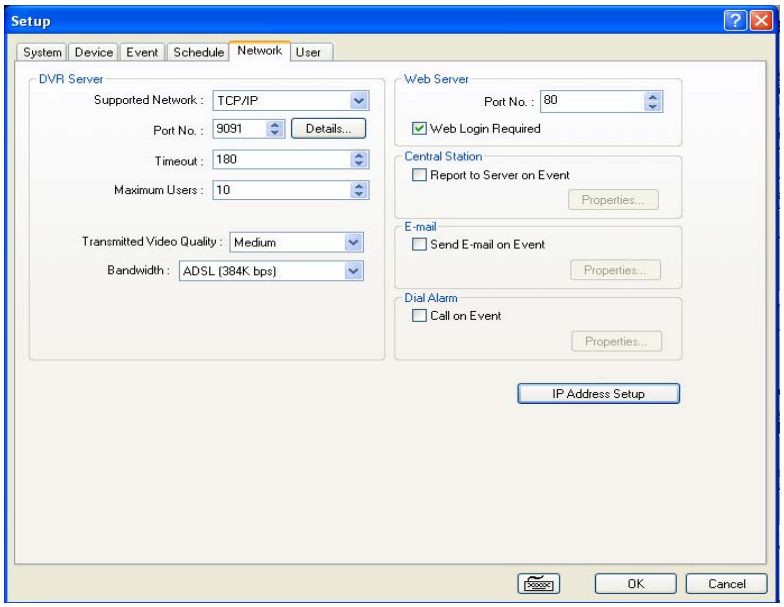




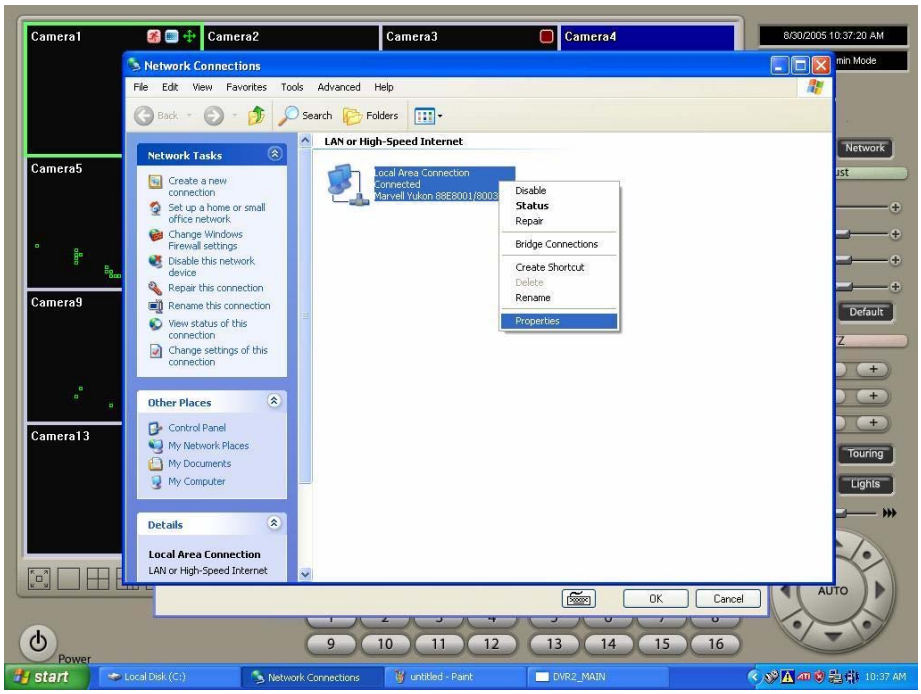
Modem card must be installed inside DVR system to make this function work. Type in phone (mobile) number to report. Click on "Reported Events" (same setup as Central Station) for more setup.

3.6.5.6 IP Address Setup





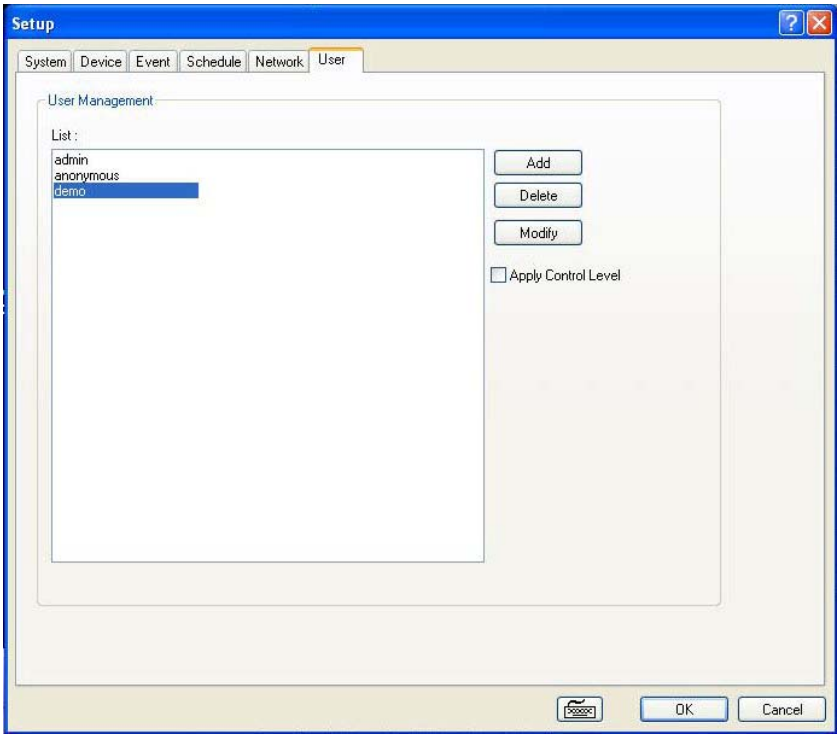
Clicking "IP Address Setting" will open a window for Network Connections as below.



Click right mouse and select Properties for IP setup for DVR's network functions.

3.6.6 User

Users can be added, deleted or modified with different authorized access and control levels.
There are no limits in the number of users created.



* Authorized Access: Checked functions will be allowed to access remotely.
* Accessible Channels: Checked channels will be allowed to view remotely.
* Control Level: The lowest number will be allowed to have the first priority to set up, control, etc remotely.
* Admin Mode: A user who can go into the setup and program (given the same authorization as “Admin”). Only ONE user with
“Admin Mode” can log in remotely.
* Network: If checked, remote access authorization will be given.
* Multi-access: If checked, multi-users with the same user name can log in remotely at the same time.
*Minimize: An authority that can minimize S/W.

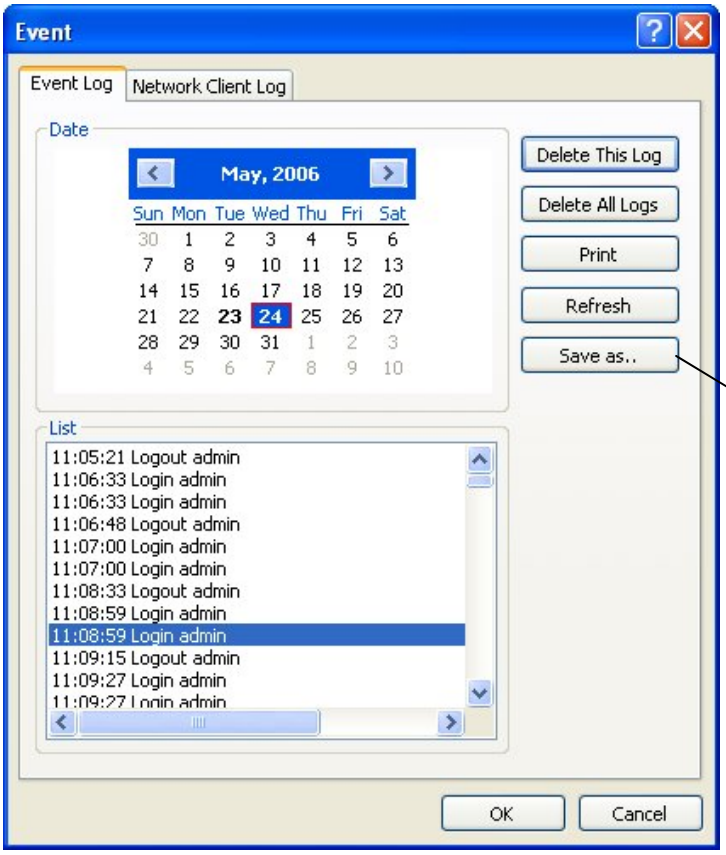
Time Set :
It’s a function that enables Administrator to set time for certain users to log in only for the time allowed.

CHAPTER 4
View Log Application (Status)

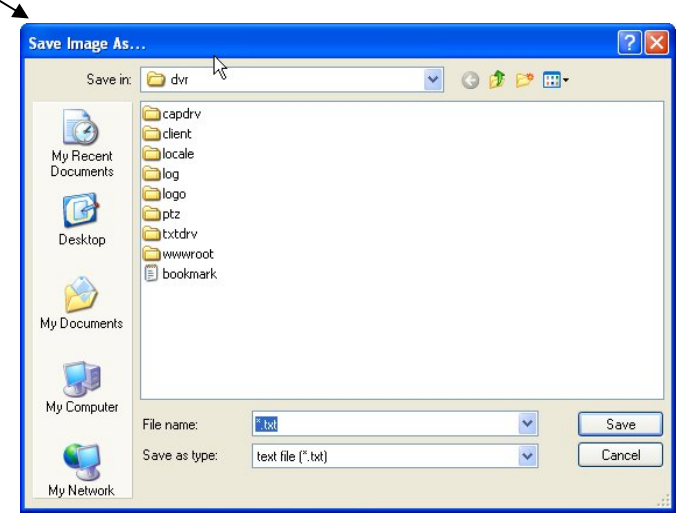
4.1 Screen Features

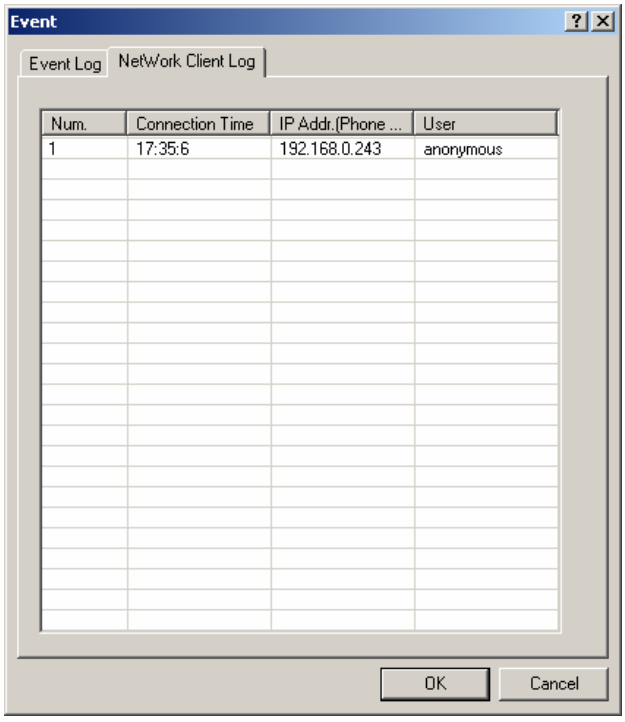
Recording Camera: It shows recording status.
Sensor Detection: It shows sensor detection status.
Motion Detection: It shows motion detection status.
Alarm: It shows alarm activation status.
HDD Capacity: It shows HDD capacity used for recording.
Event: It shows events occurred.
Event Log: It shows all the previous events occurred by date.

4.1.1 Event Log



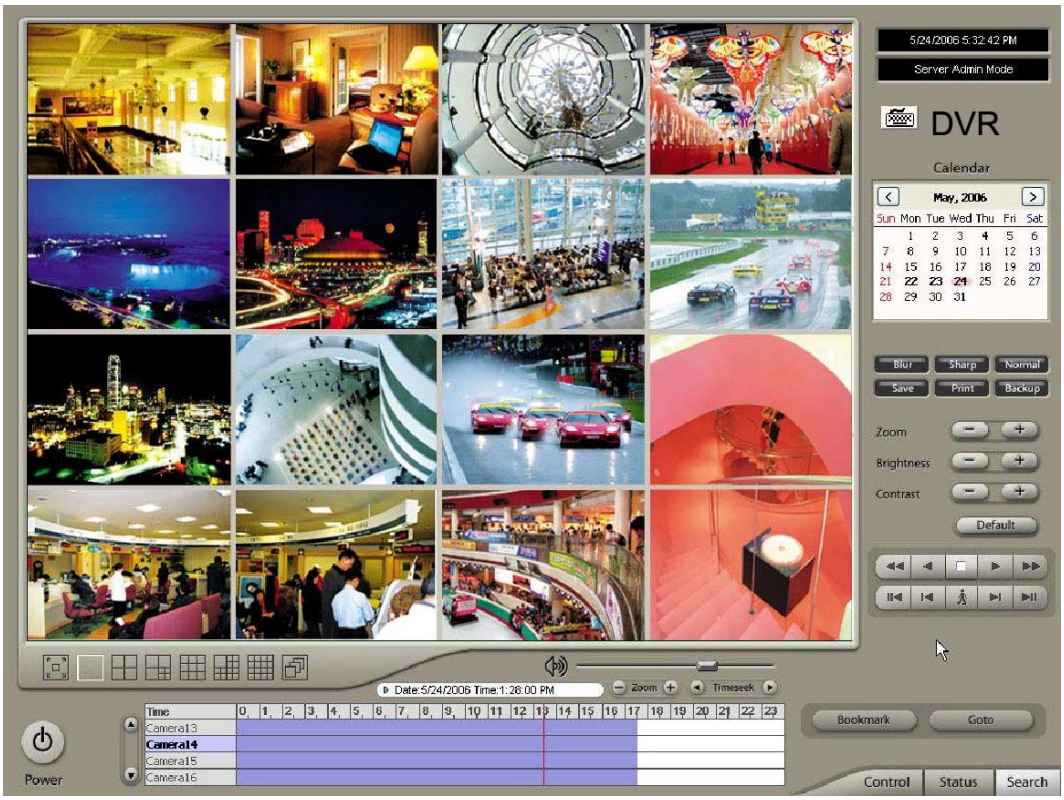
* Date: All dates with events will be marked in bold numbers.
* List: All events for a certain selected date will be shown.
* Delete All Logs: If clicked, all the previous records will be deleted.
* Delete This Log: If clicked, only the events for a certain selected date will be deleted.
* Refresh: If clicked, events will be updated.
*Print: Print the event log of a selected date.
* Save as: Save an event log of selected date with text file.





* Network Client Log : Remote login records will be also kept on DVR server.

CHAPTER 5
Playback Application (Search)

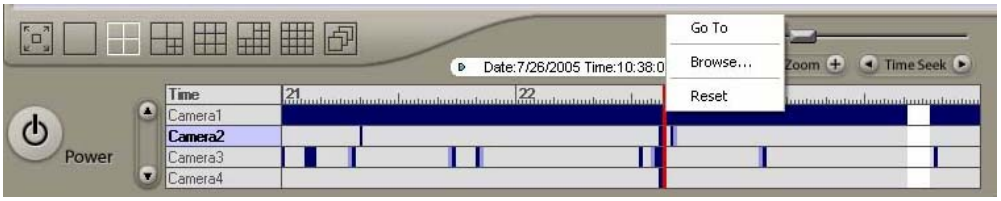


5.1 Search Features 1

Calendar: All dates with recorded data will be marked in bold numbers.
Blur/Sharp/Normal: Buttons to adjust sharpness of image
Zoom: Buttons to zoom in/out
Brightness: buttons to adjust brightness
Contrast: buttons to adjust contrast
Default: Default for Zoom/Brightness/Contrast

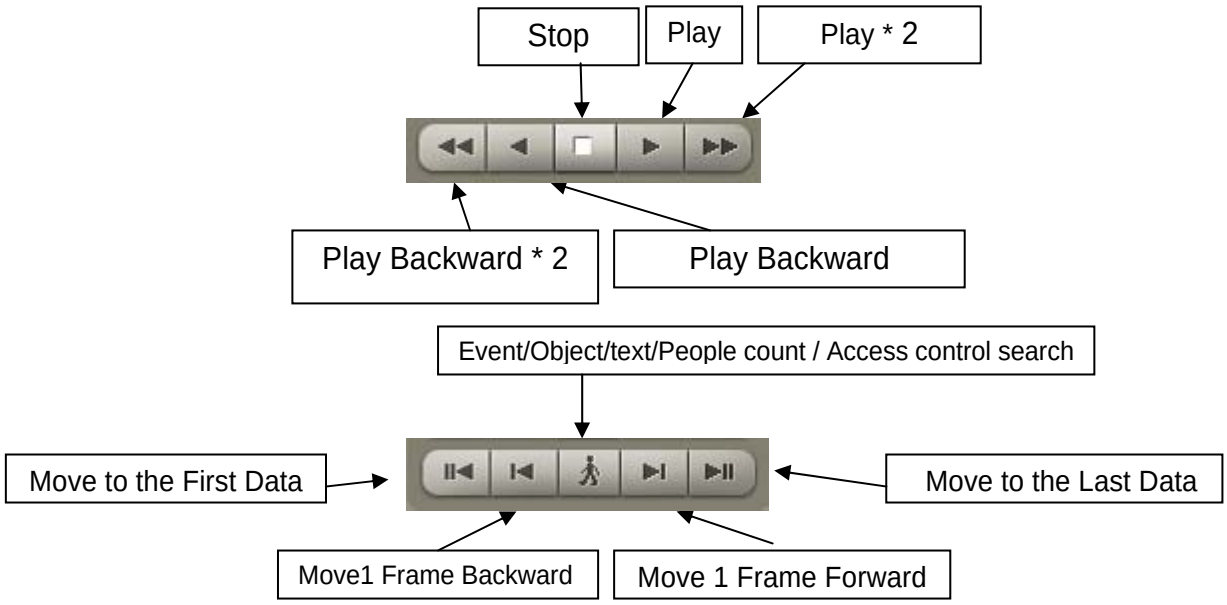
5.2 Search Features 2

5.2.1 Playback



Clicking right mouse on Time bar for Browse… and select a folder containing backup data

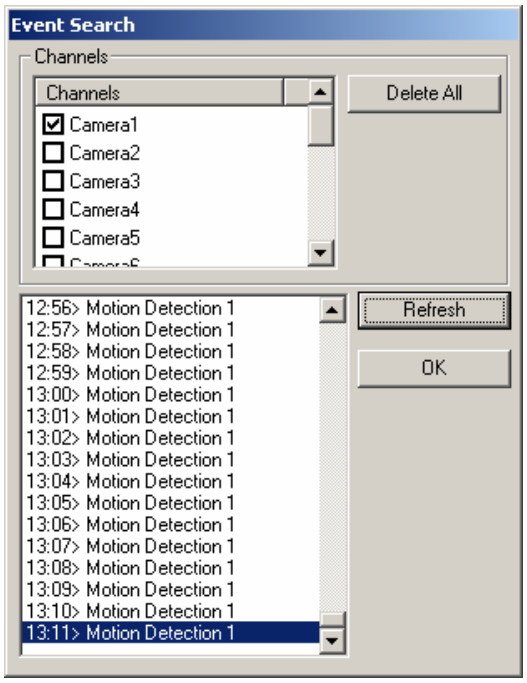
For playback, simply select date, screen mode (1, 4, 9, 16, etc.), time by one click on the time bar and click the play button.
What different colors mean on the time bar:
Blue: Recorded data by sensor & motion detection
Purple: Recorded data by 24-hour-recording
White: No recorded data in all cameras
Gray: No recorded data for some cameras
Green: Blue + audio
Light Green: Purple + audio
Dark Red : Purple + recorded text data (POS)
Orange : Even- recorded data with recorded text data.
Dark Yellow : Event-recorded data + recorded text data + audio
Yellow : Purple + recorded text data + audio



5.2.2 Event/Object/Text /People Count/Access Control Search

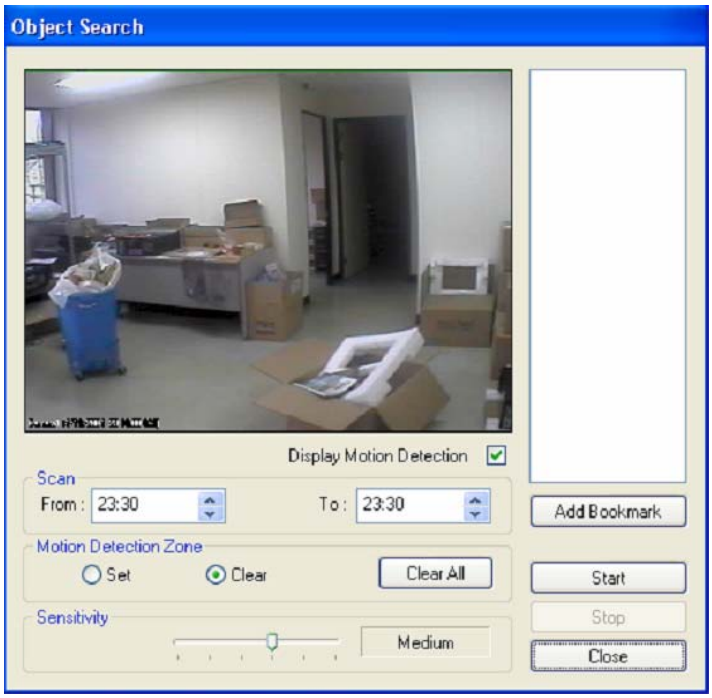
[Event Search]

Click the Event/Object Search button and select “Event”.

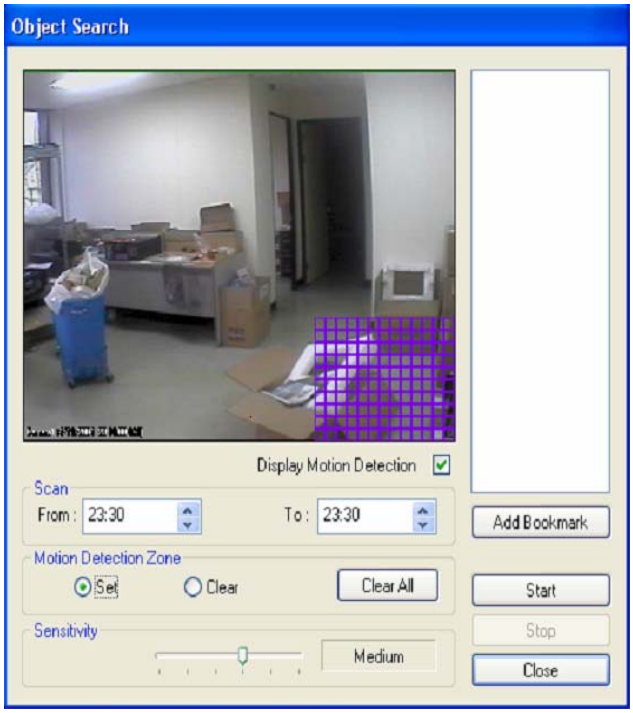


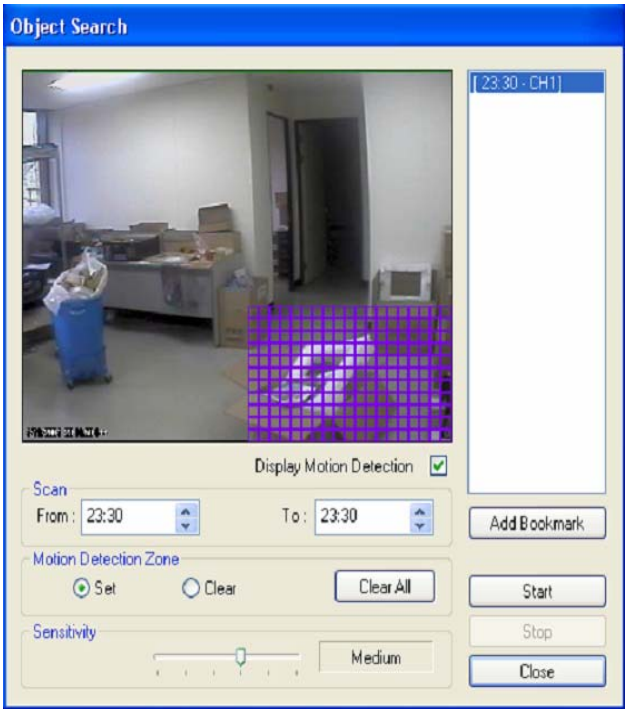
Select channels for Event Search.
Select one event from the event list and click “OK”, and the selected event will be displayed. Click Refresh” to update the list.

[Object Search]



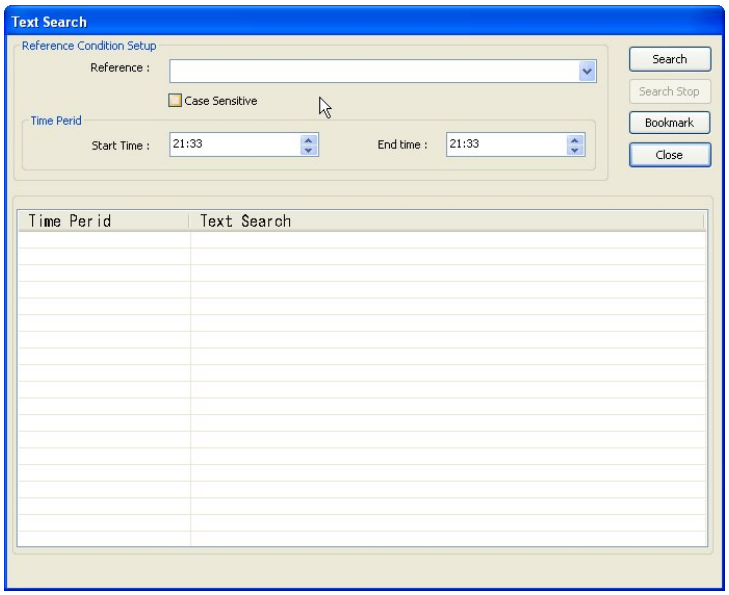
Object Search is only to search certain selected objects for a certain period of time.
Scan: Set the time period for object search
Motion Detection Zone: Select “Set” and mark areas for object search by dragging mouse. “Clear” is used to erase certain areas inside motion detection zones.
Sensitivity: Set motion detection sensitivity level.
Clear All: Click on it to clear all the motion detection zones set.





[Text Search]

It is to search POS text data with image according to selected time period and item.

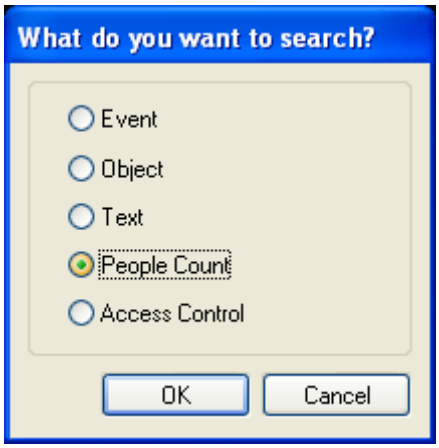


Put in an item (Reference), select time period and click on “Search”, and a list with transactions will be displayed.

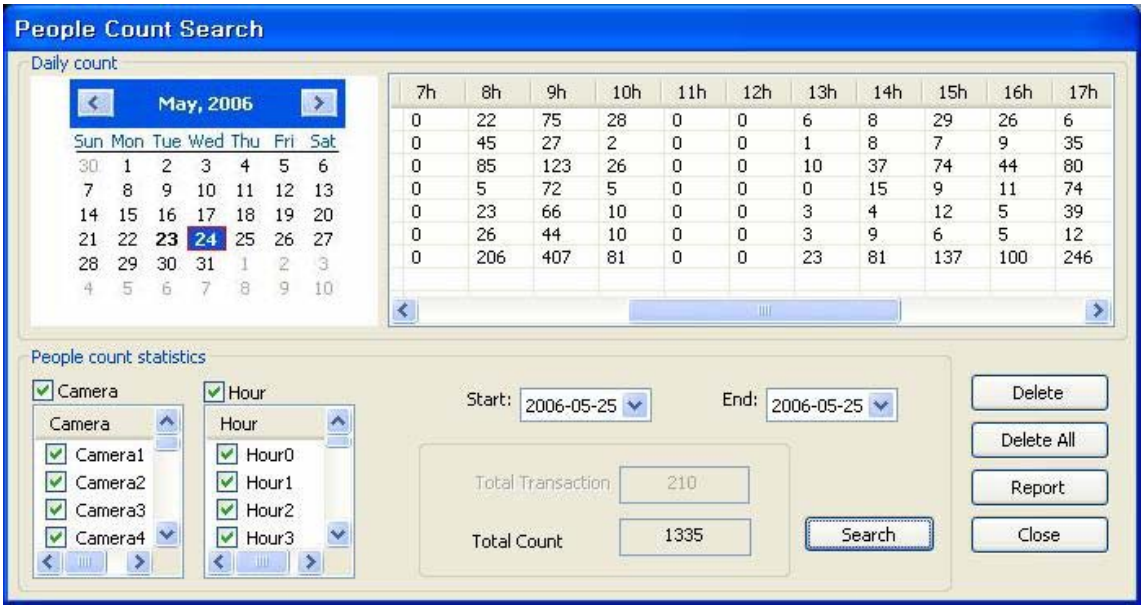
Searched words will be retained in the combo box in down-list format so the data can be easily shown in next search.

[People Count Search]

It is to search people count statistics according to selected time period & camera.
Through this function, the results of people count and POS transaction can be analyzed by the hour and cameras.



Select date, camera & time, and statistics will be shown as below.
Statistics can also be saved as text file.


People Count Search
Daily count
May, 2006
Sun Mon Tue Wed Thu Fri Sat
7h 8h 9h 10h 11h 12h 13h 14h 15h 16h 17h
0 22 75 28 0 0 6 8 29 26 6
0 45 27 2 0 0 1 8 7 9 35
0 85 123 26 0 0 10 37 74 44 80
0 5 72 5 0 0 0 15 9 11 74
0 23 66 10 0 0 3 4 12 5 39
0 26 44 10 0 0 3 9 6 5 12
0 206 407 81 0 0 23 81 137 100 246
People count statistics
Camera
Hour
Camera1
Camera2
Camera3
Camera4
Hour0
Hour1
Hour2
Hour3
Start: 2006-05-25
End: 2006-05-25
Total Transaction 210
Total Count 1335
Search
Delete
Delete All
Report
Close

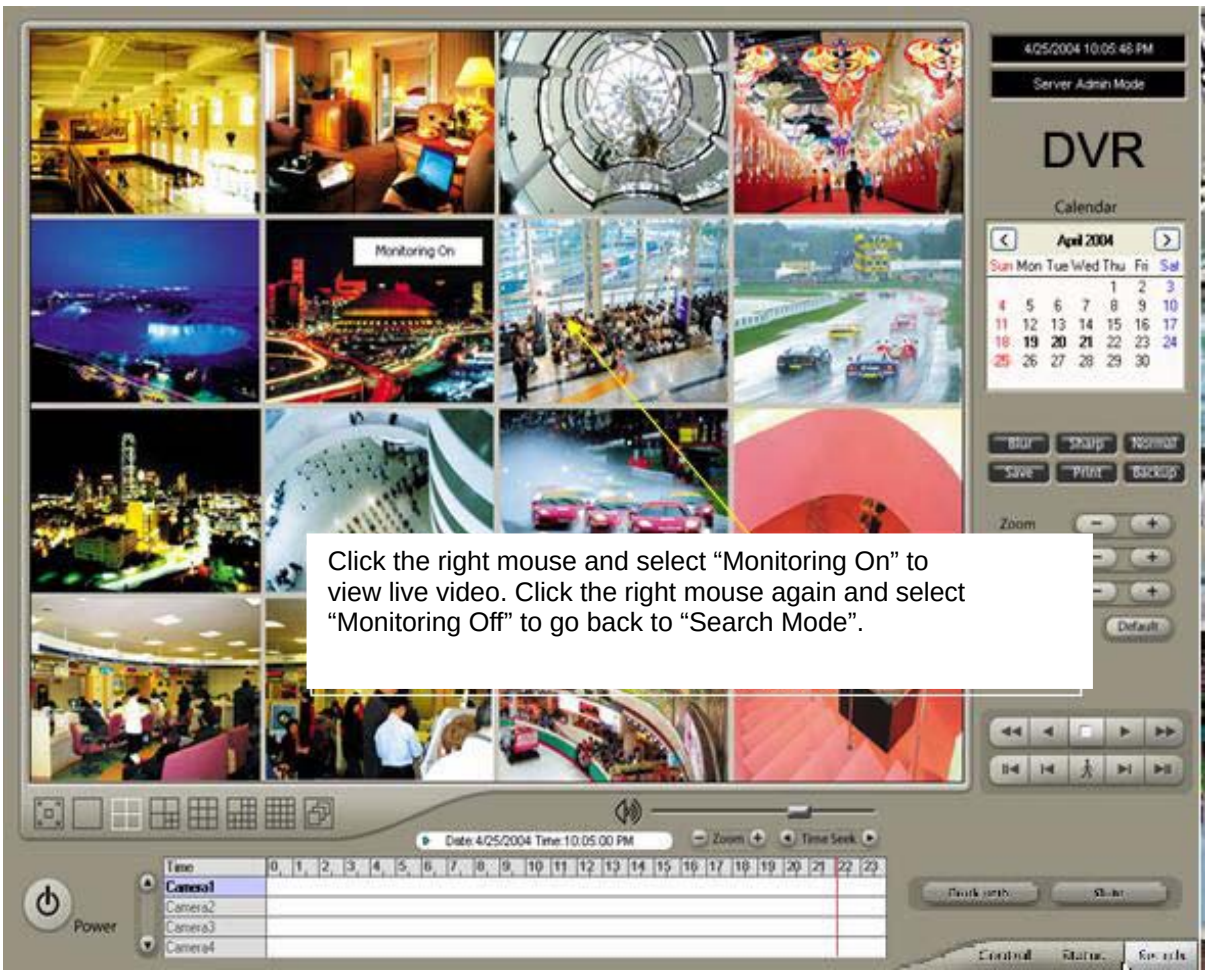
*** People Count Search**
1. Transaction Count: Counting when DVR gets data from POS.
2. People count: Counting people in certain zones.

*** People Count Statistics**
1. Camera/Hour: Select camera and hour wish to search
2. Start/End: Select date wish to search
3. Total Transaction: Results after searching transaction count in total
4. Total Count: Results after searching people count in total
5. Search: Click it to start search
6. Delete/Delete All: To erase data in statistics
7. Report: To save it in text file

* How to read data and graph
1. Counted number of (T)ransaction/ Counted number of (P)eople count
2.
Red Color: Rate of people count
Green Color: Rate of Transaction
The Pie Graph will show at a glance how many transactions have been performed, compared to the number of people counted.

5.2.3 Monitoring & Searching

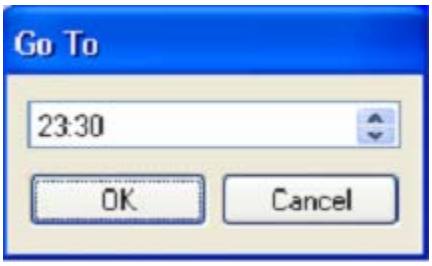
It is a feature that enables user to view live video while searching recorded data.


Monitoring On
DVR
Server Admin Mode
Calendar
Click the right mouse and select “Monitoring On” to view live video. Click the right mouse again and select “Monitoring Off” to go back to “Search Mode”.

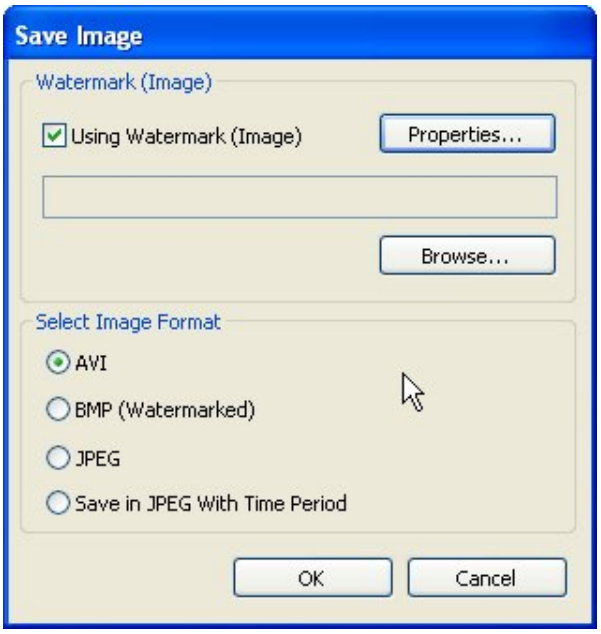
5.2.4 Bookmark & Go To

Bookmark (Favorites): Added data from " Object Search" are stored here.

Go To: Select desired time to search and click "OK".

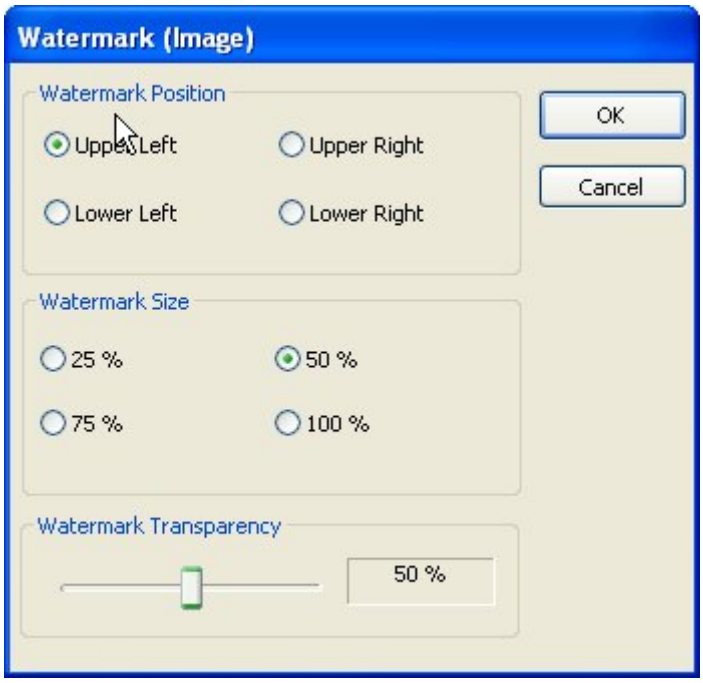


5.2.5 Save

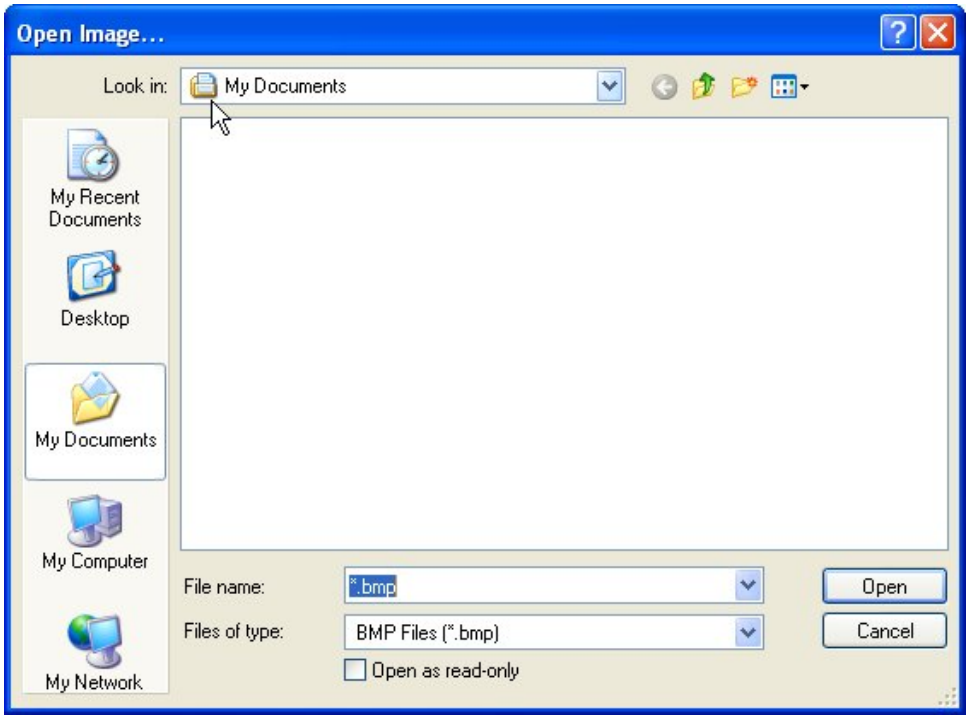


Watermark(Image)
Using Watermark(Image): To attach a certain logo or special picture on AVI file.

AVI: For saving motion pictures and audio
BMP: For saving images. Watermarked images can be saved.
JPEG: For saving regular still images. Quality is not as good as BMP but less HDD is used.
Save in JPEG with Time Period: For scheduled save in JPEG

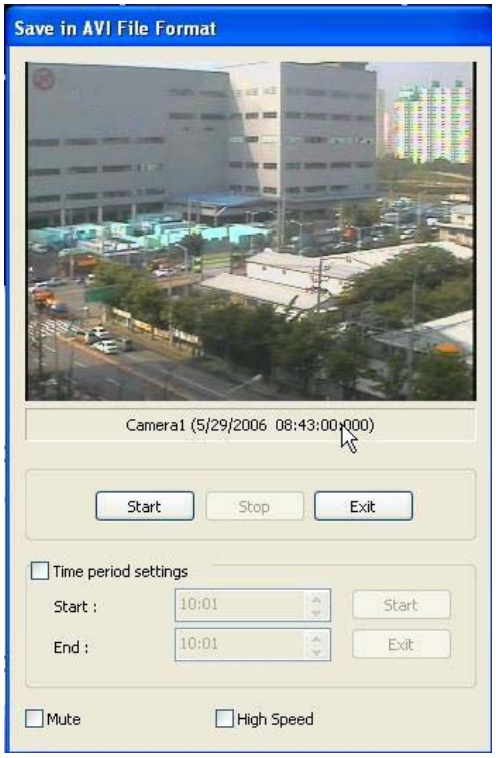


Watermark Setting
Select each for desirable watermark setting.

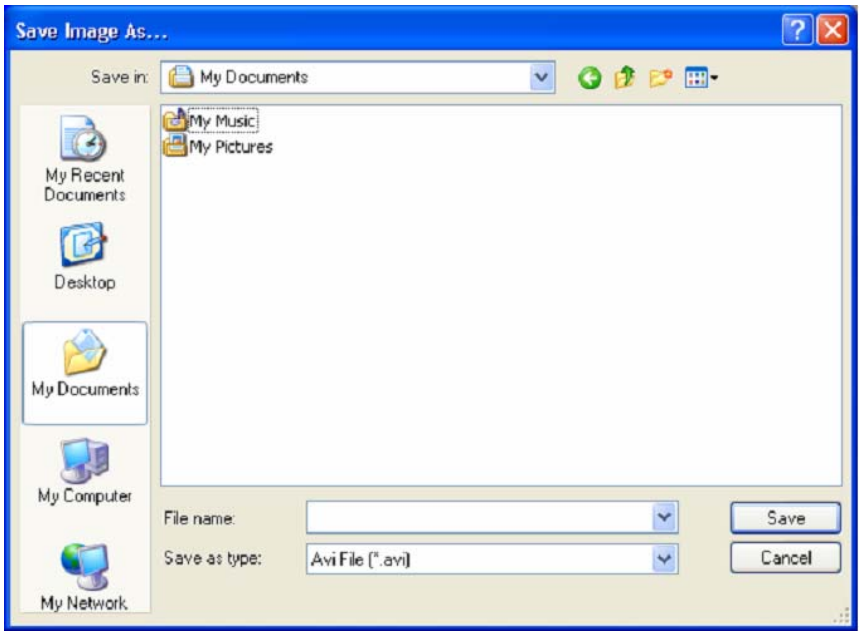


Click on “Browse” to find watermark image or logo.

[Save in AVI Format]



Click “Start” to start saving and “Stop” to stop saving.
Mute: Saving video only (no audio)
High Speed: Saving in high speed
Click time period settings and put the time period that you want to save.

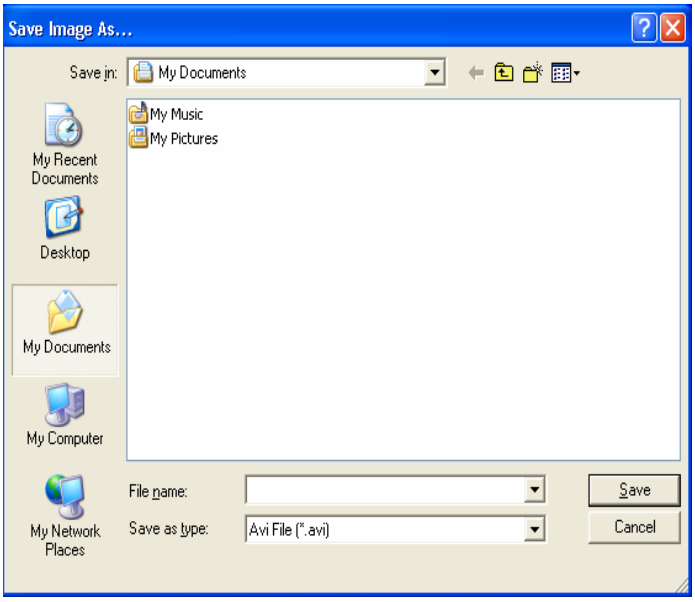


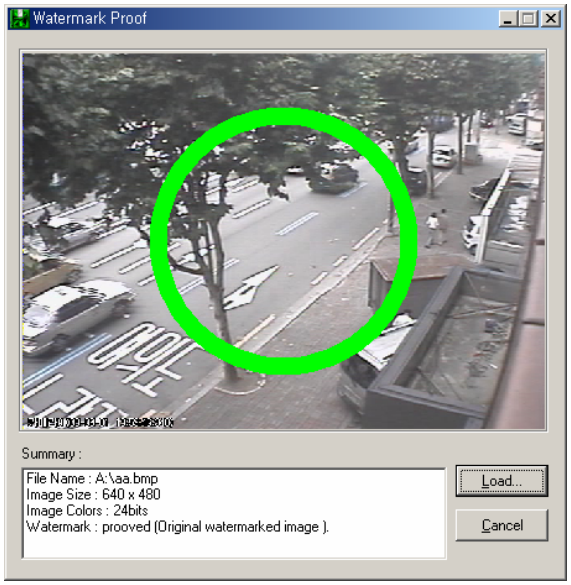
[Save in BMP Format]

Click “Start”and select “BMP” as you save images.
Saved images can be checked using “Watermark Proofer”.

[Watermark Proofer]

Execute “Watermark Proofer” and check if certain saved images are forged or not.

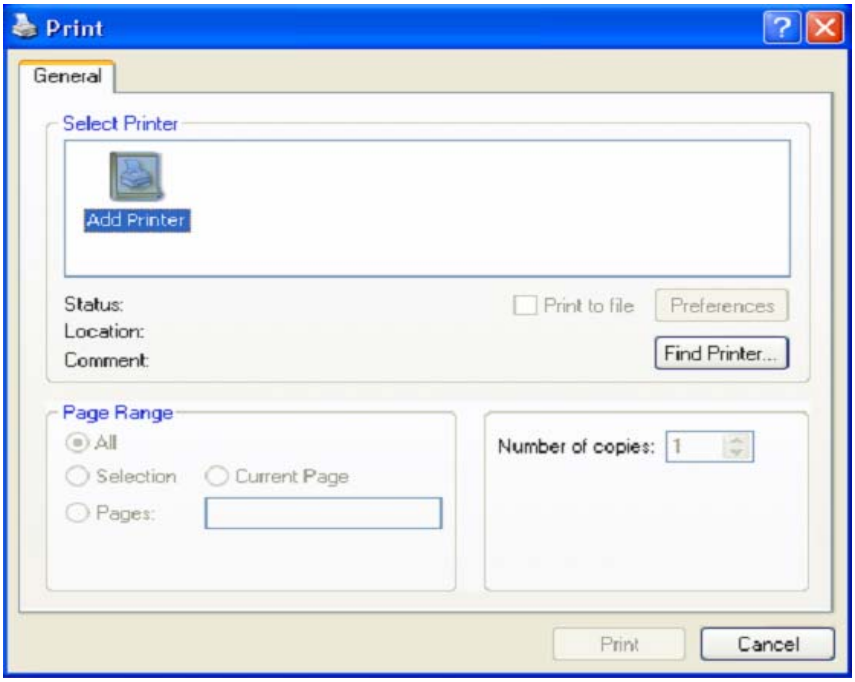




[Save in JPEG Format] ⇨ Click “Start” and select “JPEG” as you save images.

[Save in JPEG with Time Period] ⇨ Select time period and select channels to be saved in JPEG.

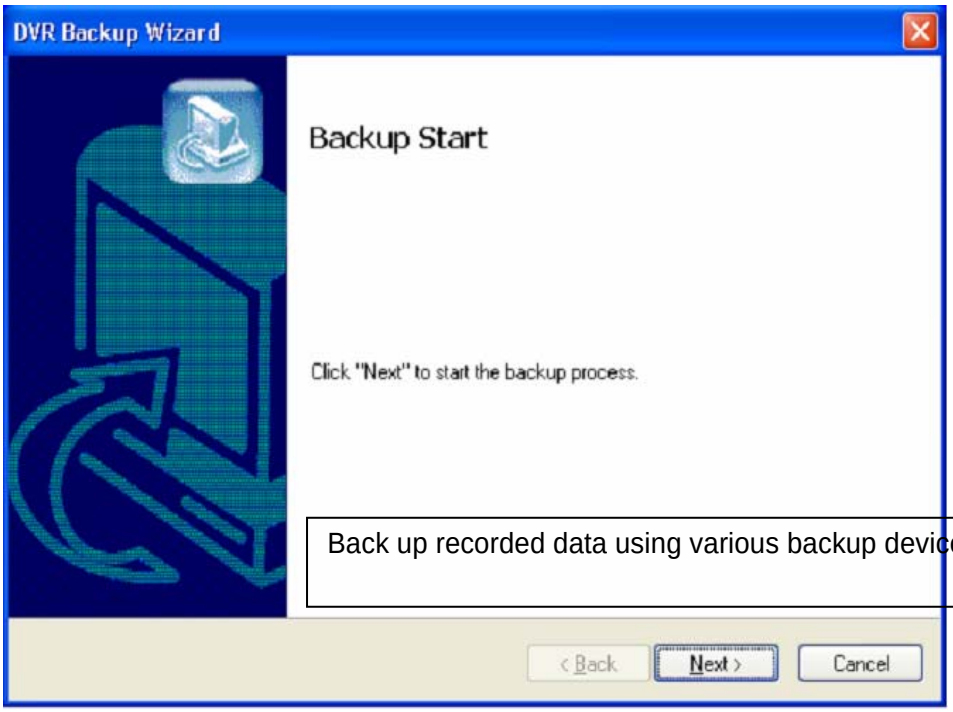
5.2.6 Print



Click the “Print” button and follow the same printing procedure as you would normally print out documents.

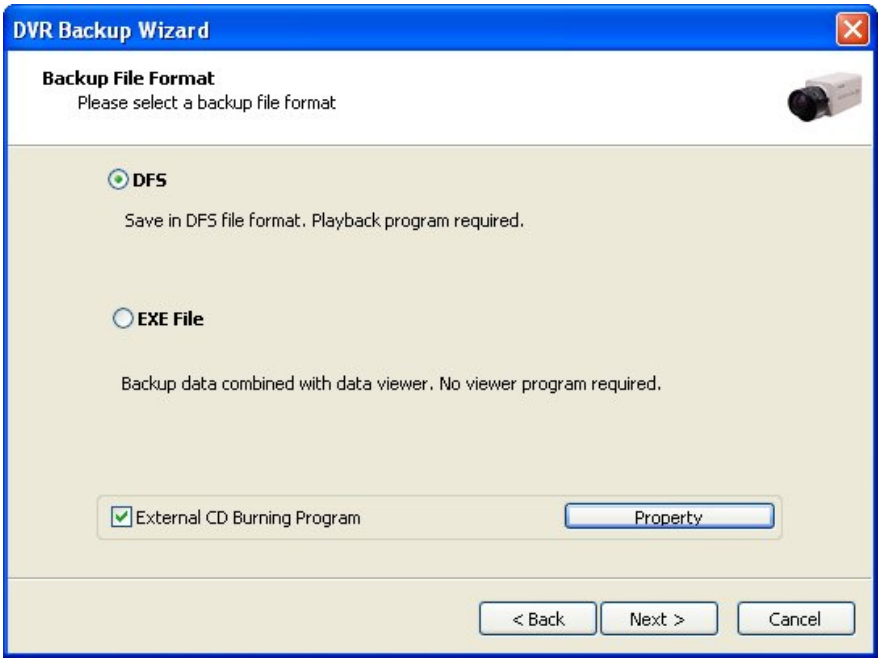
5.2.7 Backup

The recorded data can be copied from the hard disk to external storage devices, such as CD-R, DVD.

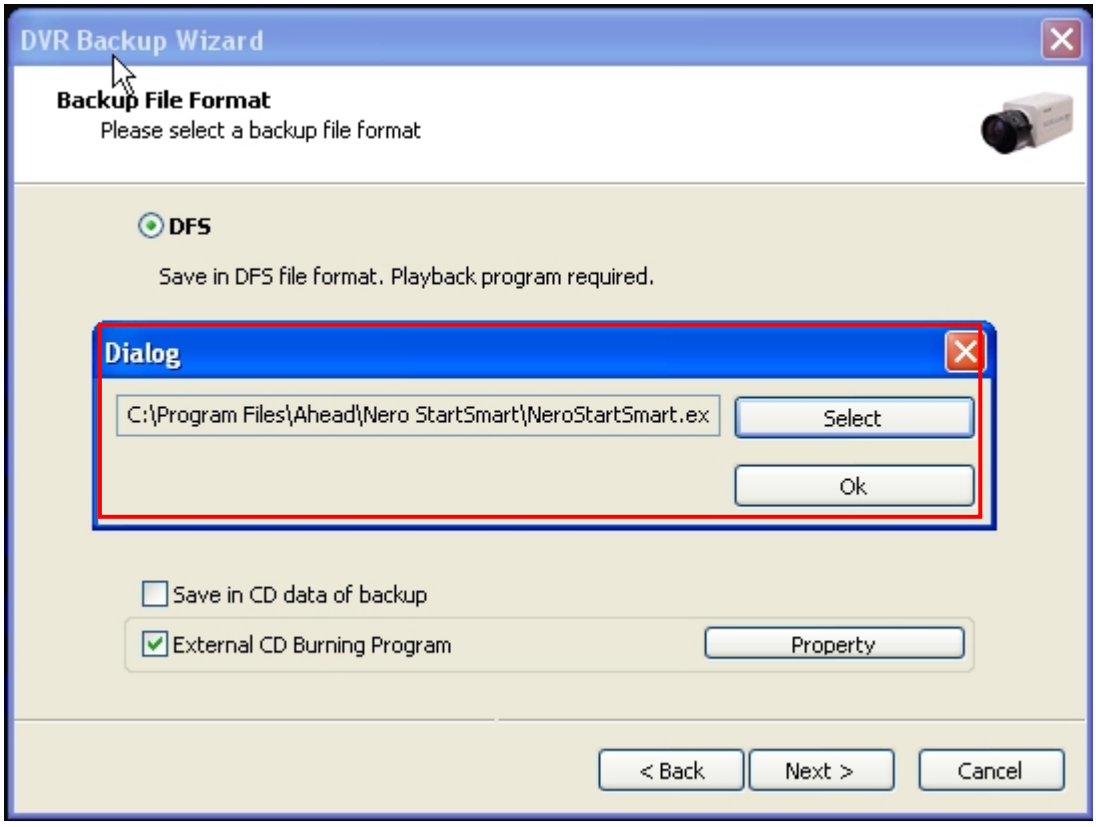


Back up recorded data using various backup devices.

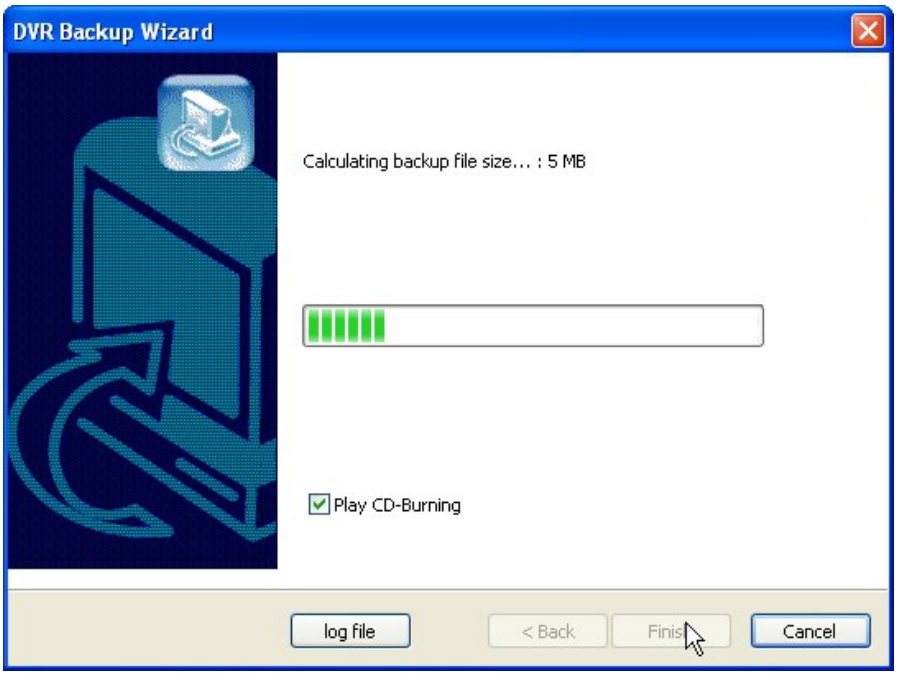
5.2.7.1 DFS Back up

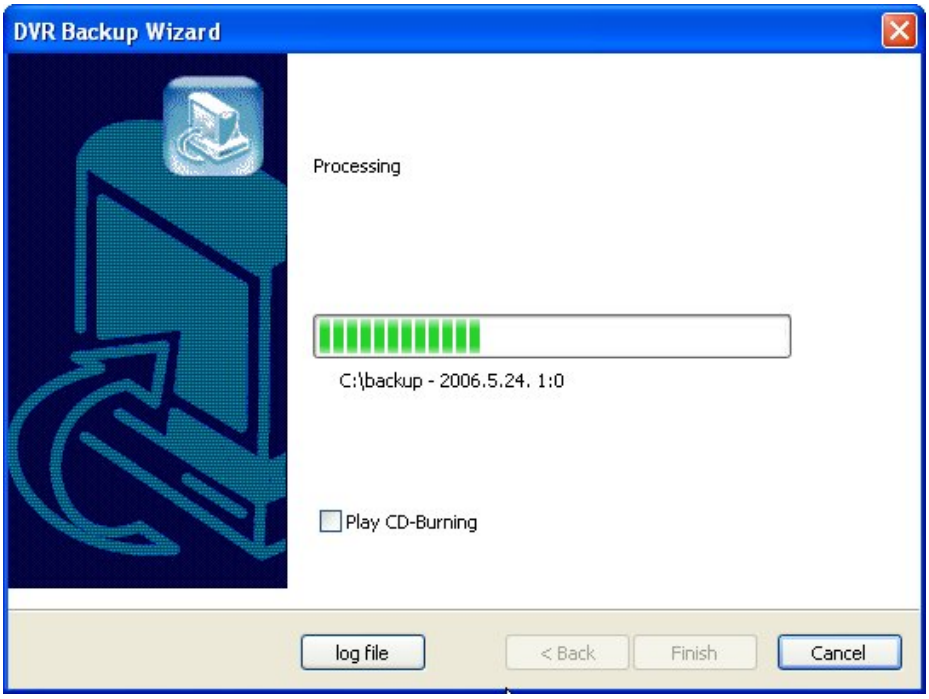


DFS: Save in DFS file format.
Dialog: Show the directory of burning software (e.g..Nero Burning)
External CD Burning Program: User can run the other CD burning program such as Nero burning.
After successfully back up the file, user can burn the data onto CD.



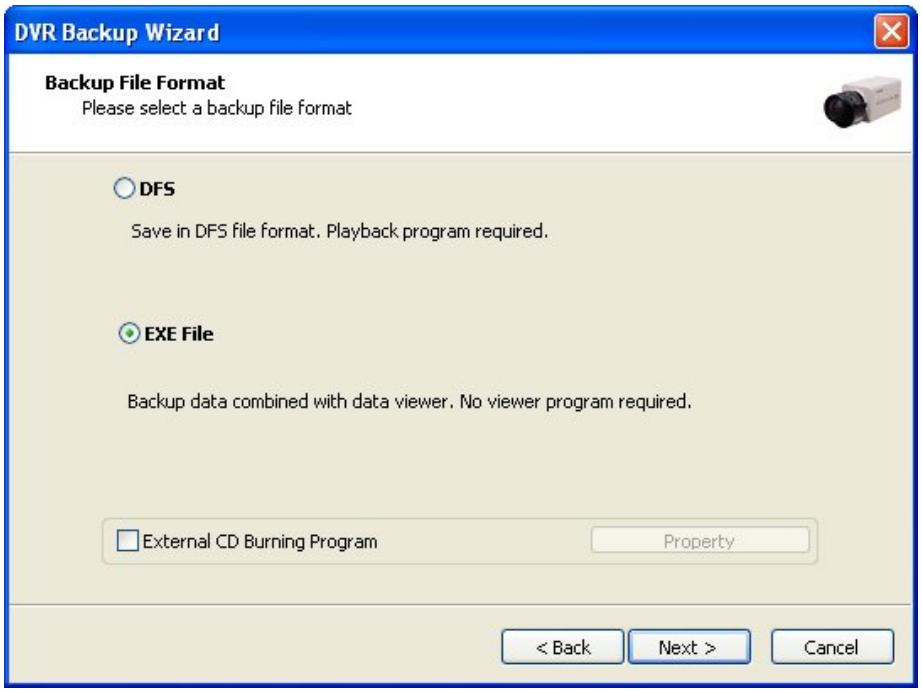
Select Time Period : Specify time period for backup. The minimum period for backup is 1 minute.
If password is set, viewing backup data will be possible only when it is typed in.
Backup Folder: Click the “Browse” button, select a drive to back up and enter a desired folder name.



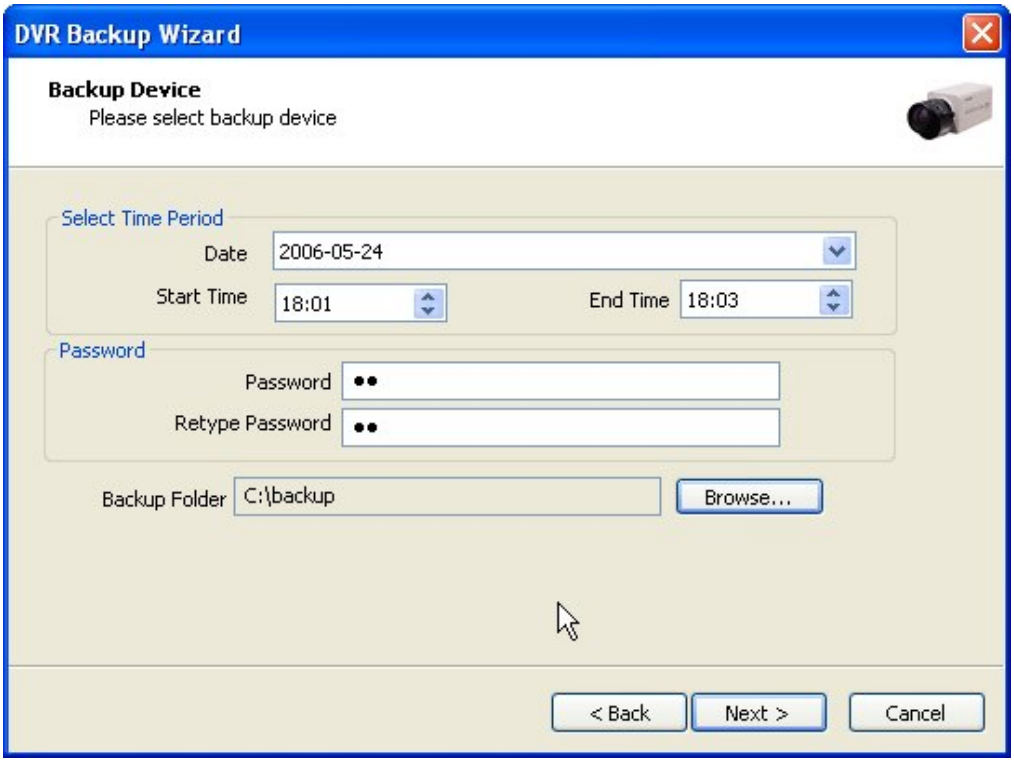


Play CD-Burning: Check to burn the backup data through an external Burning program.
Log File: Shows “Backup Start Time”, ”Directory”, ”Status-fail or Success”.

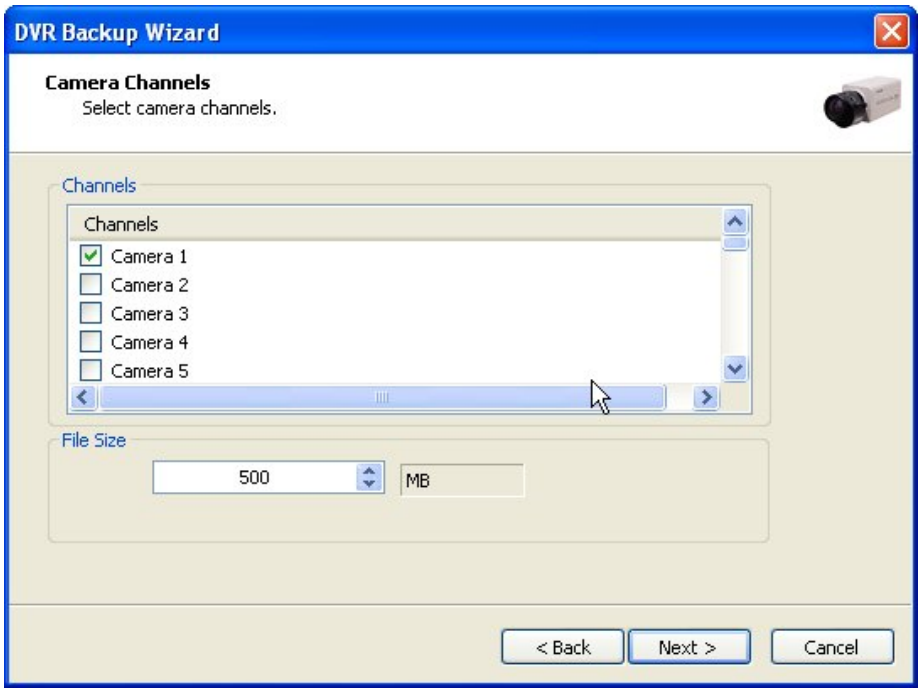
5.2.7.2 EXE Back up

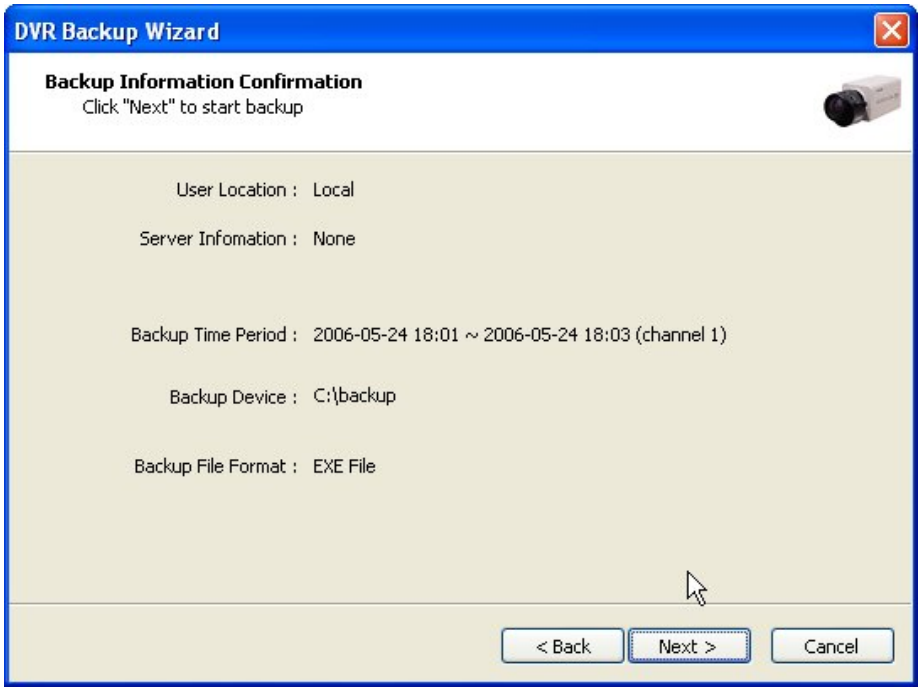


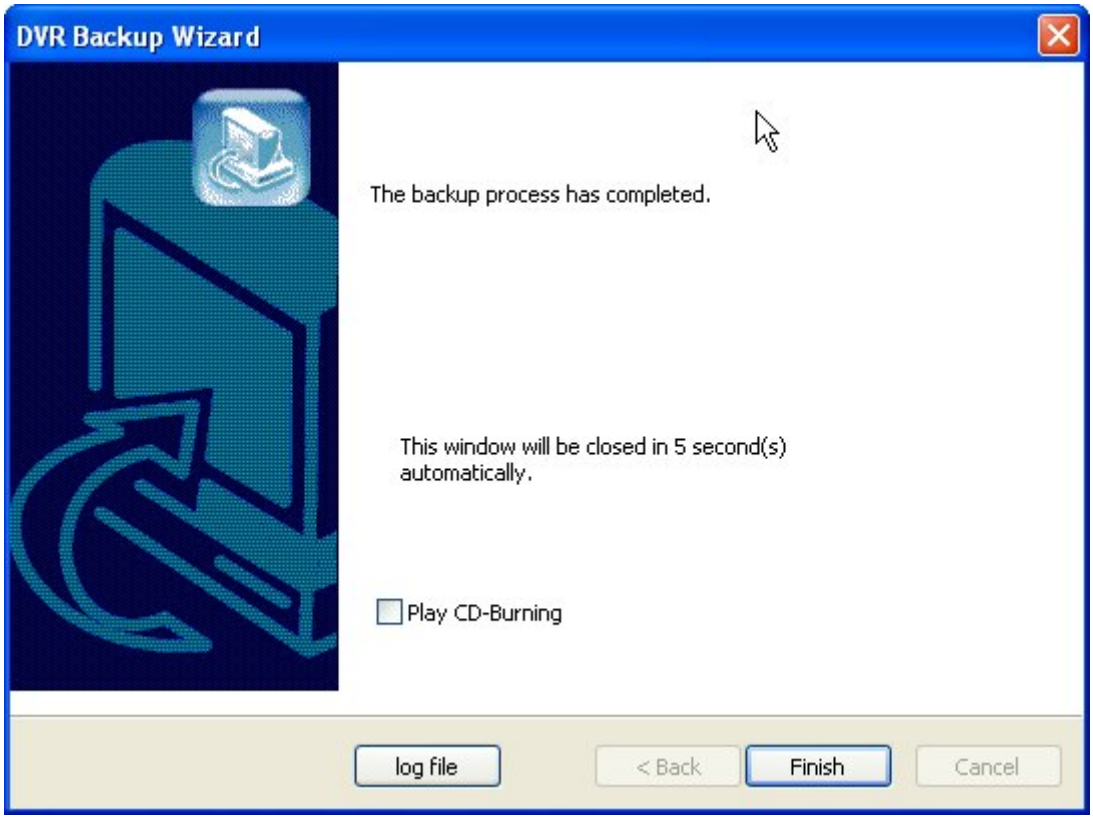
Any recorded data can be saved as ".exe" file. No viewer program is required to see saved data.
Note : 1. file size limited up to 1 GB.
2. 1 channel backup only.

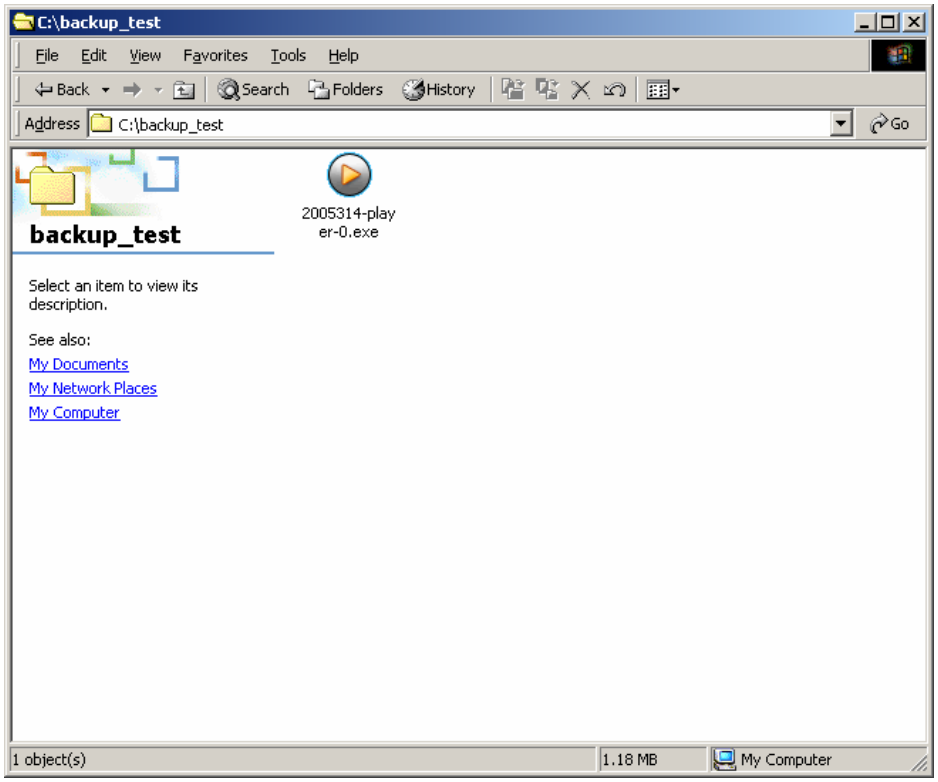


Select “EXE File”.
Specify time period, password, drive, etc.
Select ONE channel to back up.
Specify file size up to ONE GB. If it is larger than 1GB, multiple exe files will be created.
Tick the “Once Make EXE File” box to create only one file with the file size specified.
Double-click the exe file created to see data.

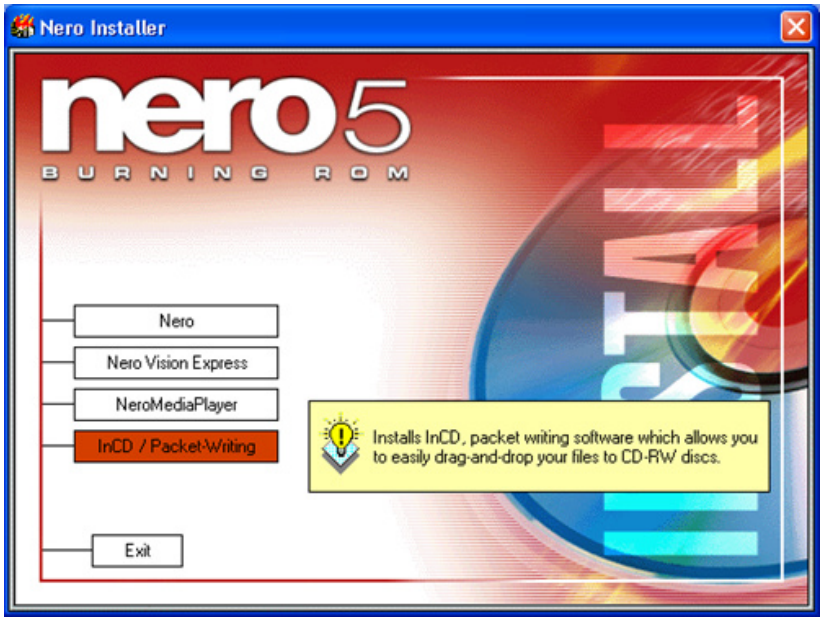



DVR Backup Wizard
Backup Information Confirmation
Click "Next" to start backup
User Location : Local
Server Infomation : None
Backup Time Period : 2006-05-24 18:01 ~ 2006-05-24 18:03 (channel 1)
Backup Device : C:\backup
Backup File Format : EXE File
< Back
Next >
Cancel

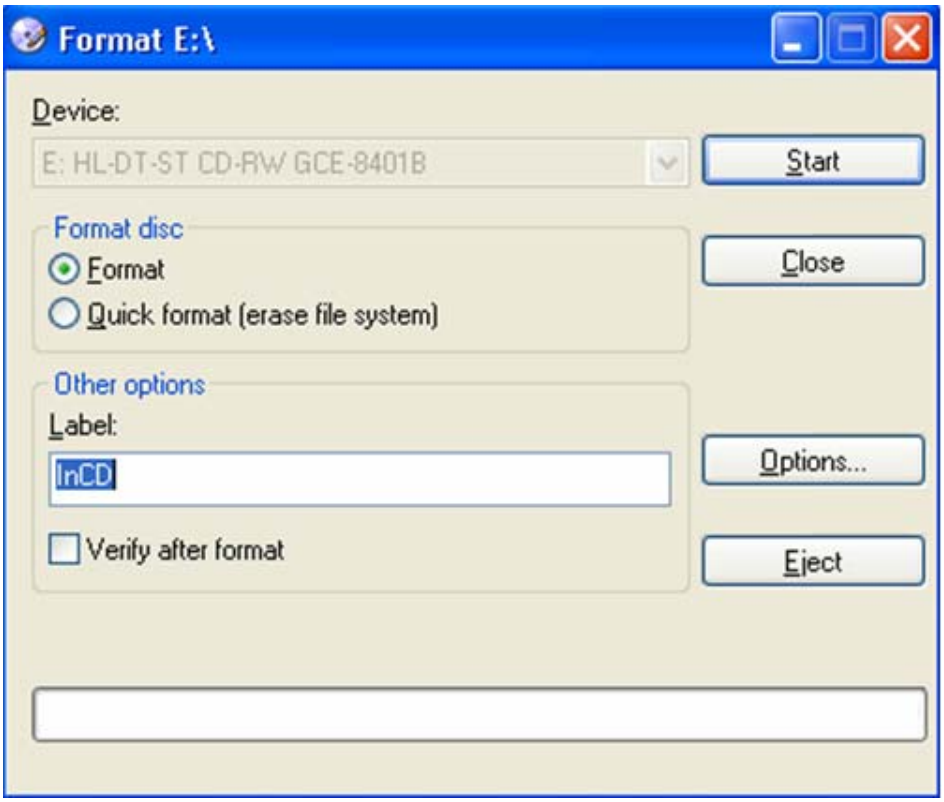

DVR Backup Wizard
The backup process has completed.
This window will be closed in 5 second(s) automatically.
Play CD-Burning
log file
< Back
Finish
Cancel

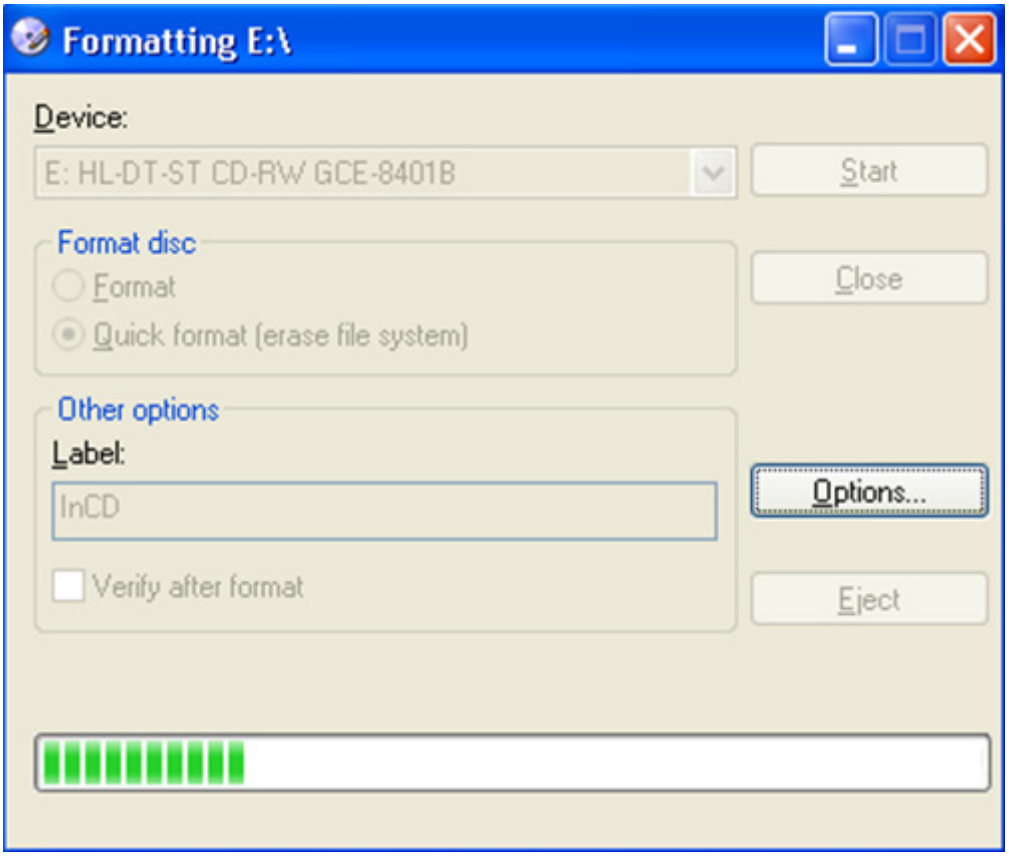

C:\backup_test
File Edit View Favorites Tools Help
Back Search Folders History
Address C:\backup_test
Go
backup_test
2005314-player-0.exe
Select an item to view its description.
See also:
My Documents
My Network Places
My Computer
1 object(s)
1.18 MB
My Computer

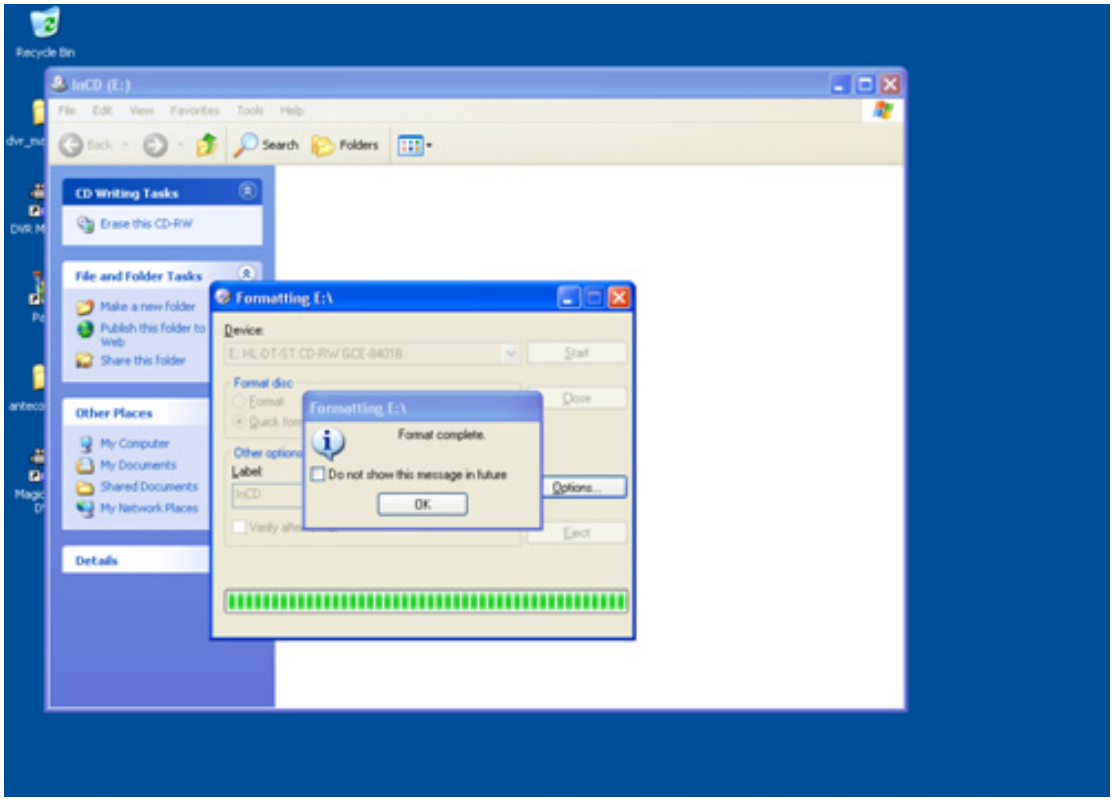
5.2.7.3 Run CD Burner (For Non Windows XP Users)



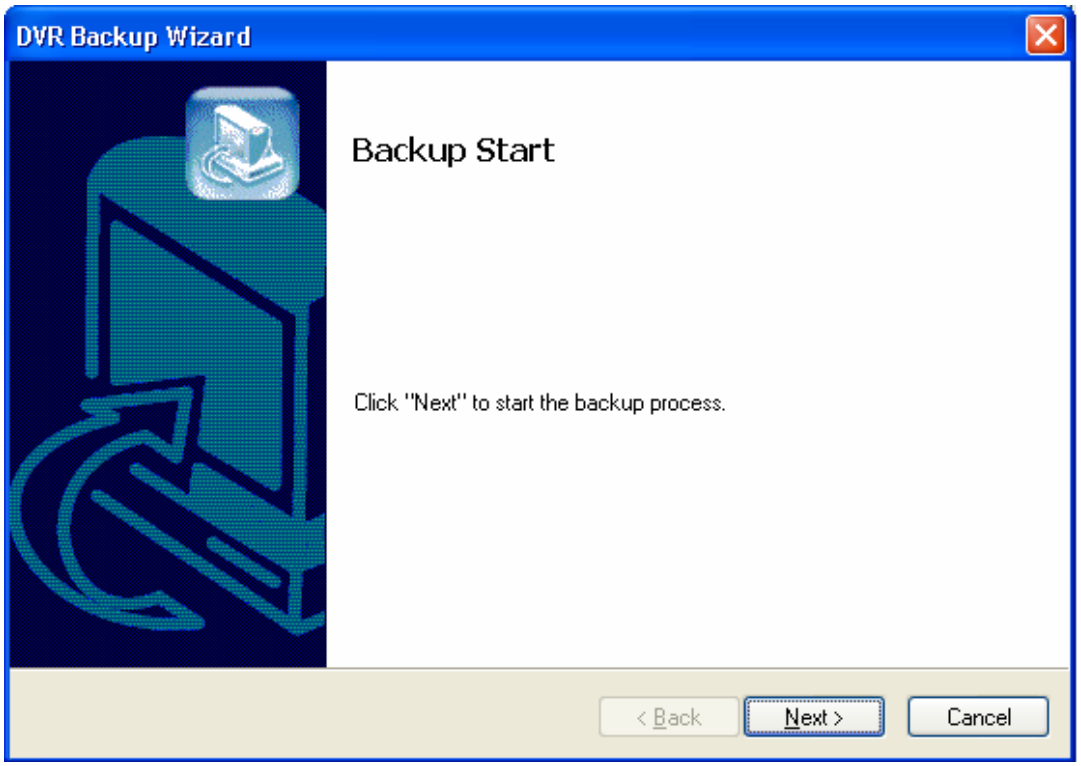
1. Install bundle CD and install INCD.
3. After installing INCD, run "**InCDL.exe"** which is the INCD Launch Program.
4. Insert a blank RW CD and then start formatting it (If it is a brand-new one, click "Format" instead of "Quick Format").

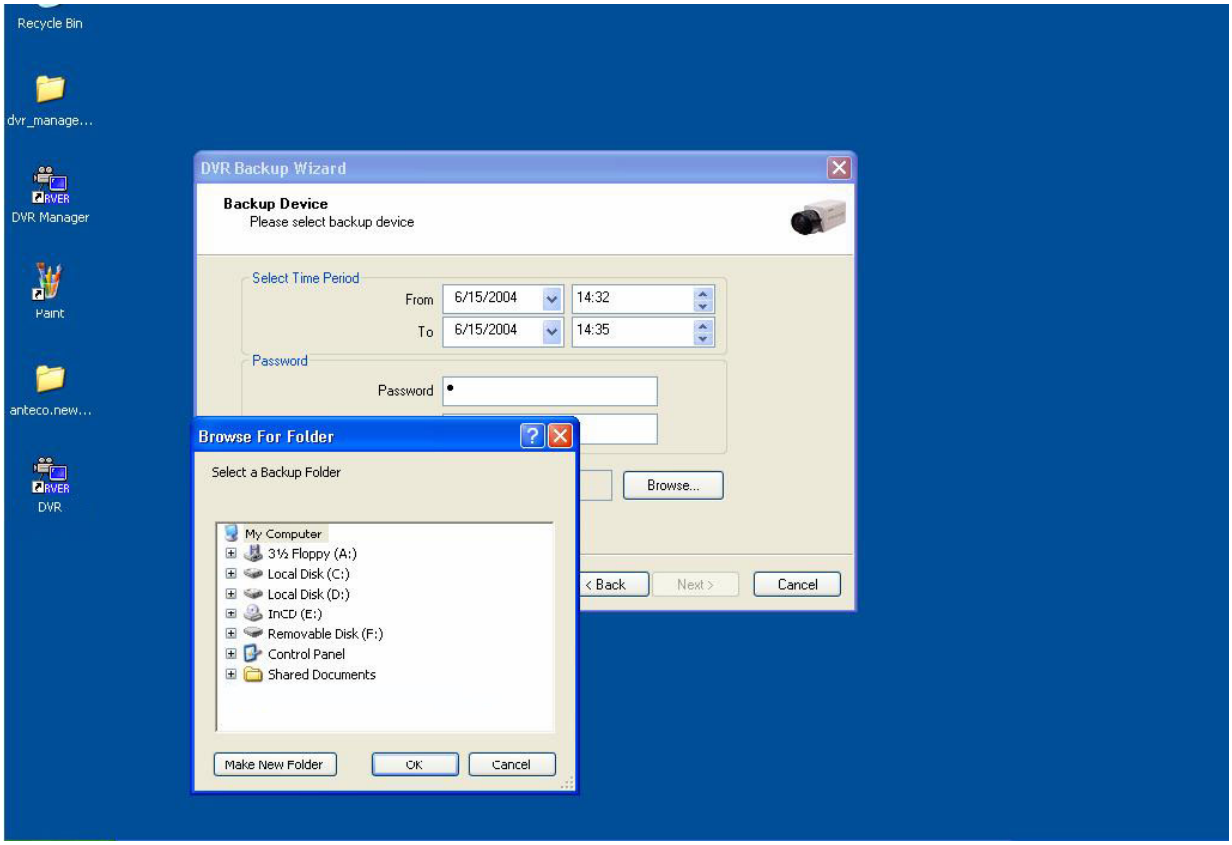

Format E:\
Device:
E: HL-DT-ST CD-RW GCE-8401B
Start
Format disc
Format
Quick format (erase file system)
Close
Other options
Label:
InCD
Options...
Verify after format
Eject

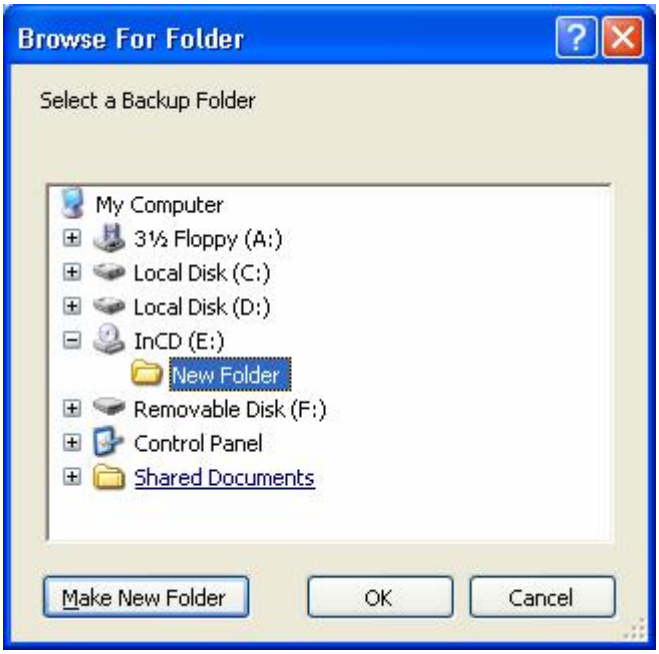

Formatting E:\
Device:
E: HL-DT-ST CD-RW GCE-8401B
Start
Format disc
Format
Quick format (erase file system)
Close
Other options
Label:
InCD
Options...
Verify after format
Eject



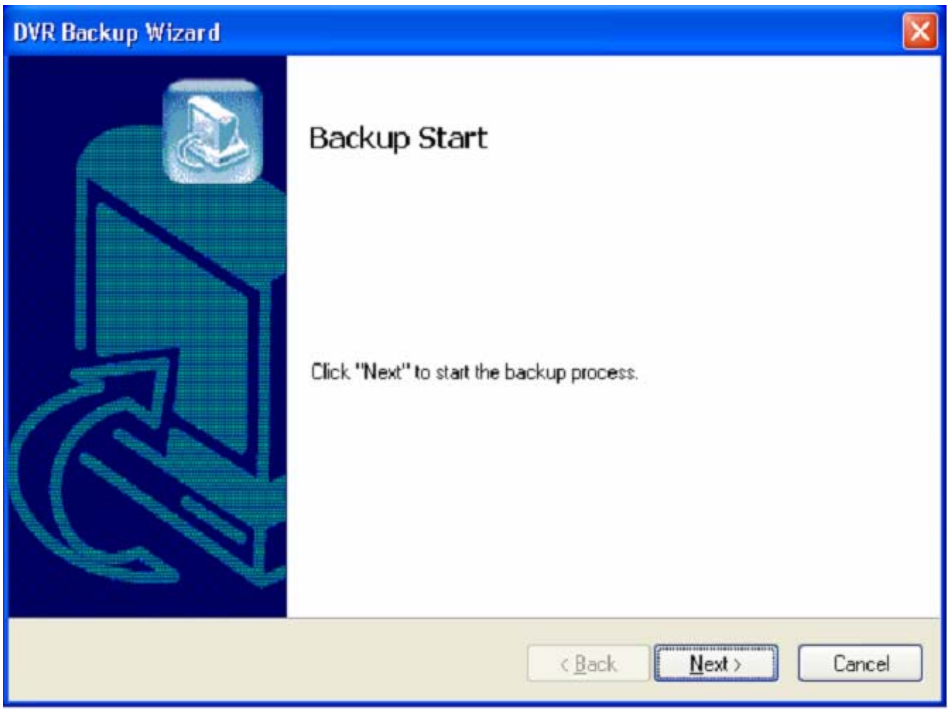
5. Leave the DVR Program and insert the blank RW CD which has been formatted.
6. Select “Backup” and click “Next” to start.
7. Select time period & password and click “Browse” to create a folder.

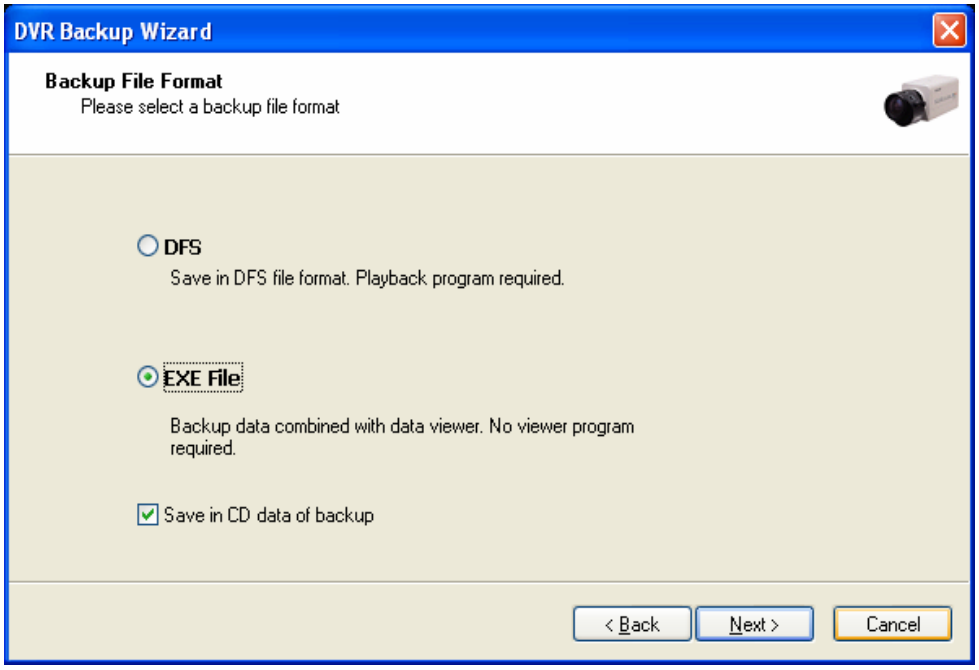



Recycle Bin
dvr_manage...
DVR Manager
Paint
anteco.new...
DVR
DVR Backup Wizard
Backup Device
Please select backup device
Select Time Period
From 6/15/2004 14:32
To 6/15/2004 14:35
Password
Password
Browse...
< Back
Next >
Cancel
Browse For Folder
Select a Backup Folder
My Computer
3½ Floppy (A:)
Local Disk (C:)
Local Disk (D:)
InCD (E:)
Removable Disk (F:)
Control Panel
Shared Documents
Make New Folder
OK
Cancel


Browse For Folder
Select a Backup Folder
My Computer
3½ Floppy (A:)
Local Disk (C:)
Local Disk (D:)
InCD (E:)
New Folder
Removable Disk (F:)
Control Panel
Shared Documents
Make New Folder
OK
Cancel

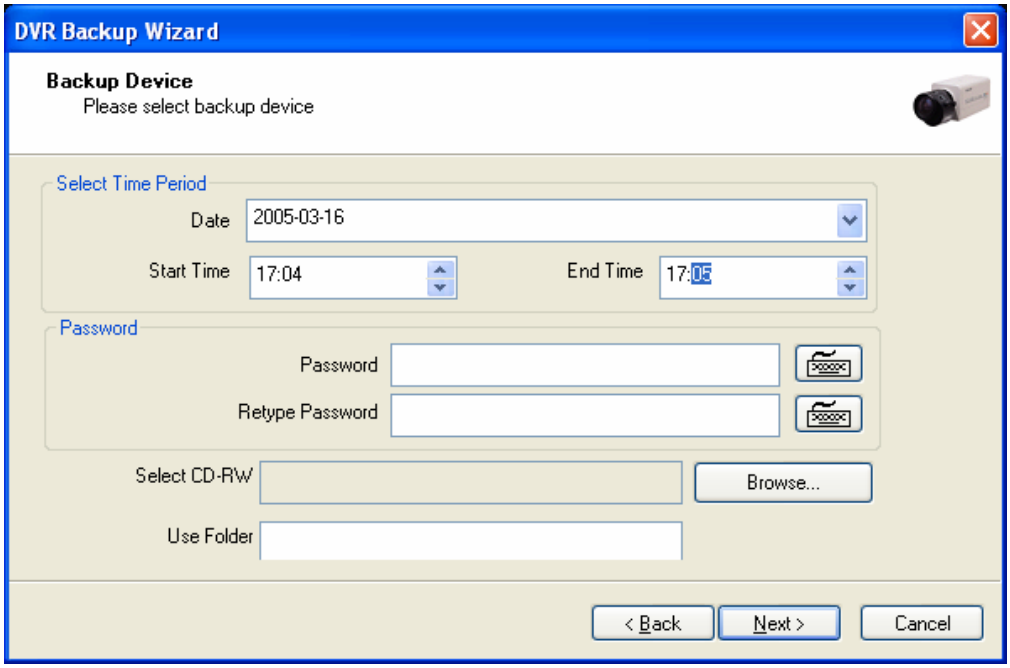
5.2.7.4 Run CD Burner (For WindowsXP Users Only)



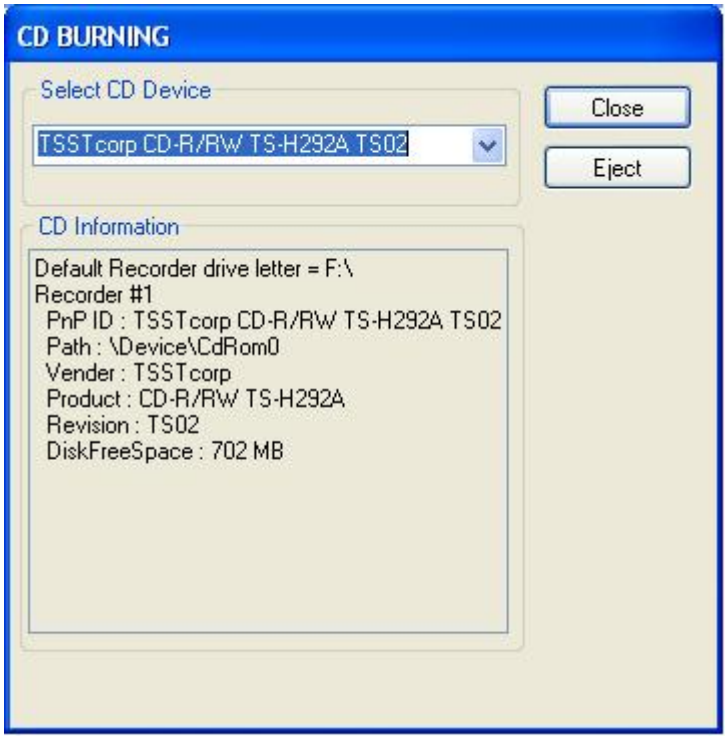

DVR Backup Wizard
Backup File Format
Please select a backup file format
DFS
Save in DFS file format. Playback program required.
EXE File
Backup data combined with data viewer. No viewer program required.
Save in CD data of backup
< Back
Next >
Cancel

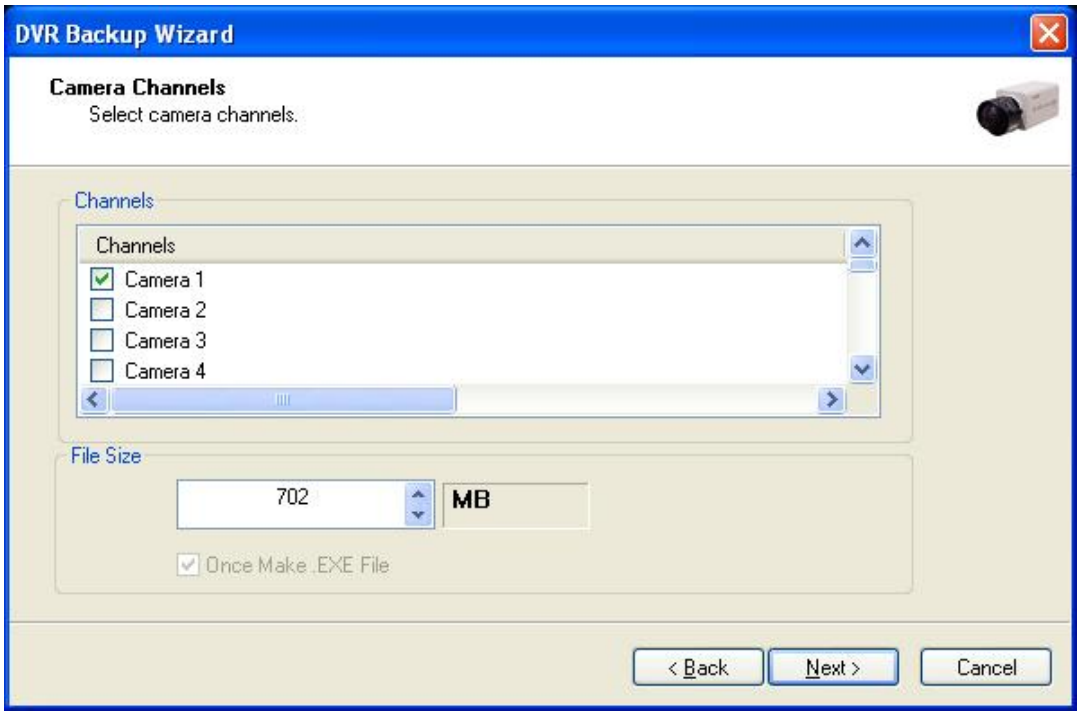
Windows XP users can back up data directly in a CD without exiting the DVR Program.

1. Tick the “Save in CD data of backup” box and click “Next”.

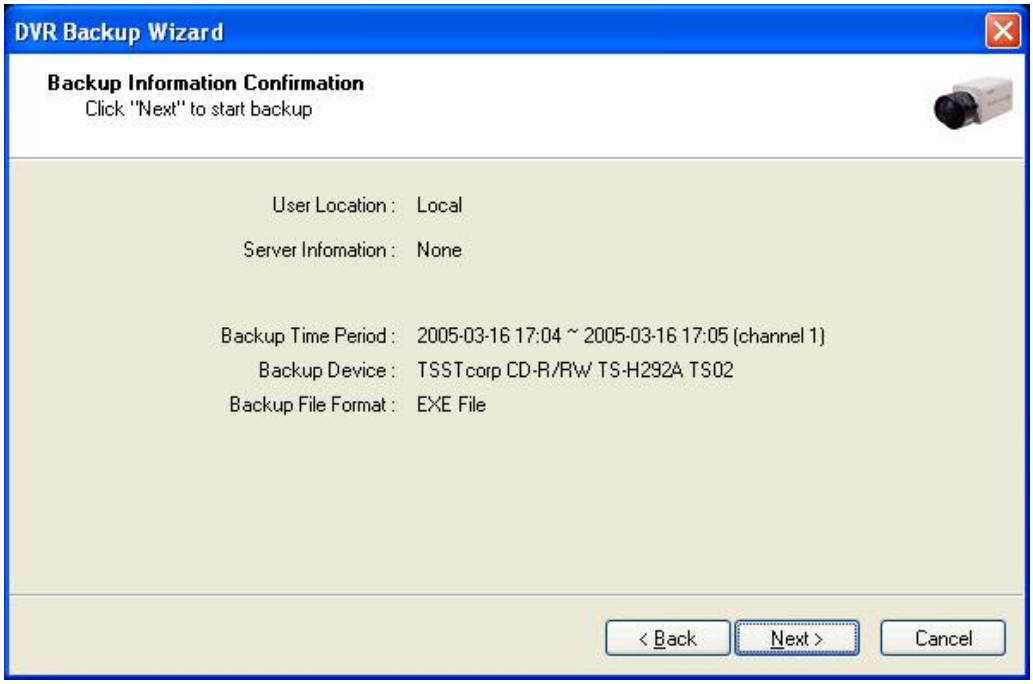


Select Time Period : Specify time period and password.
Select CD-RW drive.
Create folder name if it should be used and click “Next”.
CD information will be shown as below.

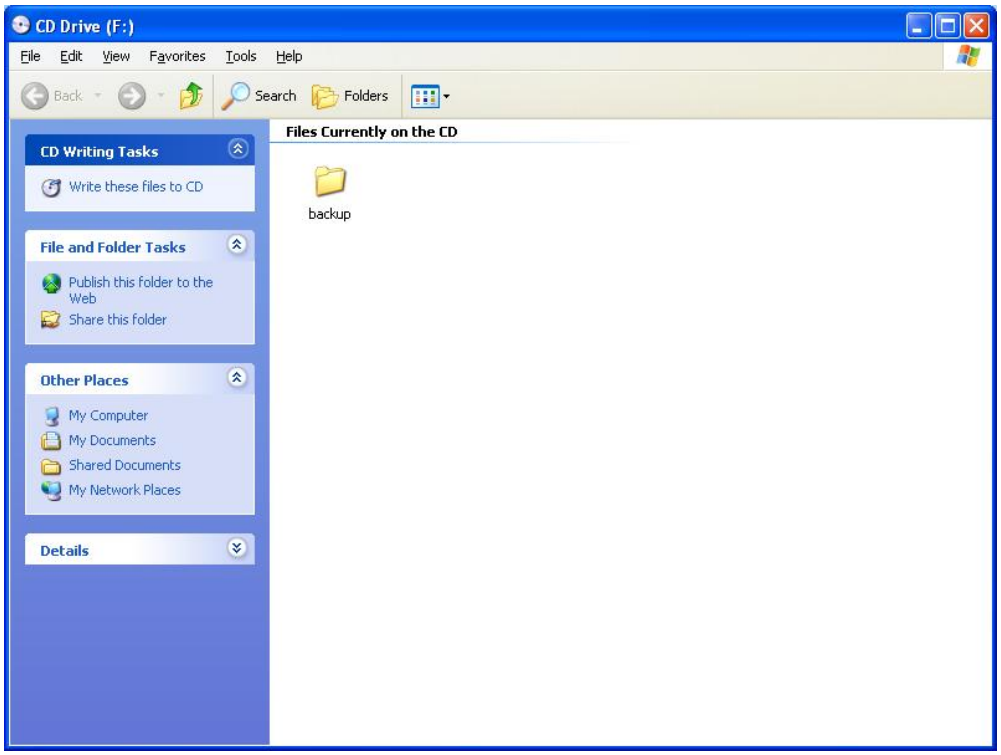


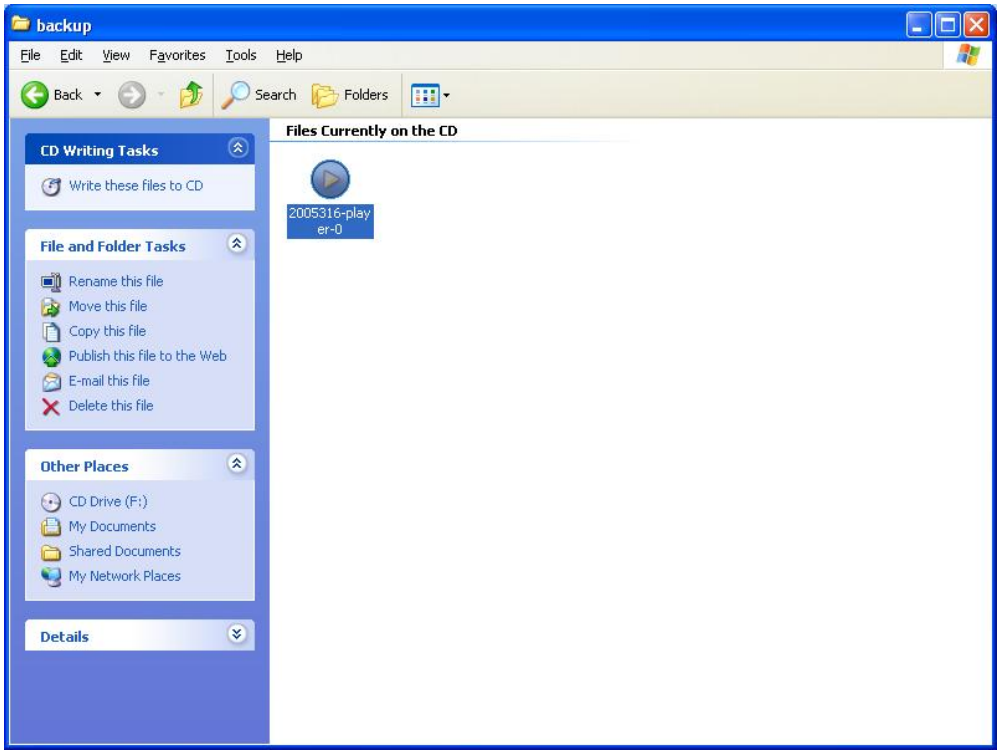


Select 1 channel to back up.
Identify the maximum file size indicated. An attempt to back up more than the size indicated will result in a failure.


DVR Backup Wizard
Backup Information Confirmation
Click "Next" to start backup
User Location : Local
Server Infomation : None
Backup Time Period : 2005-03-16 17:04 ~ 2005-03-16 17:05 (channel 1)
Backup Device : TSSTcorp CD-R/RW TS-H292A TS02
Backup File Format : EXE File
< Back
Next >
Cancel

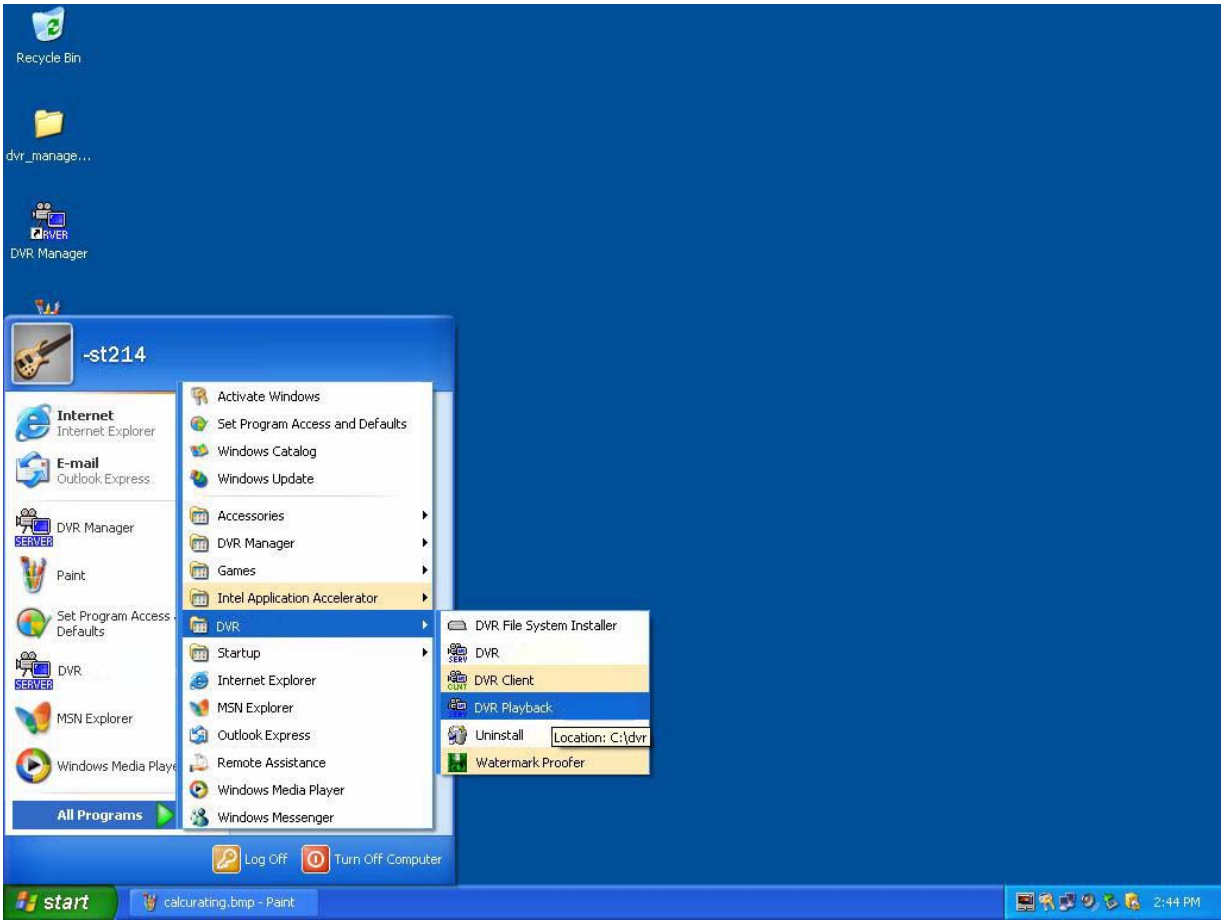
After completing back up, find the files created in the CD.

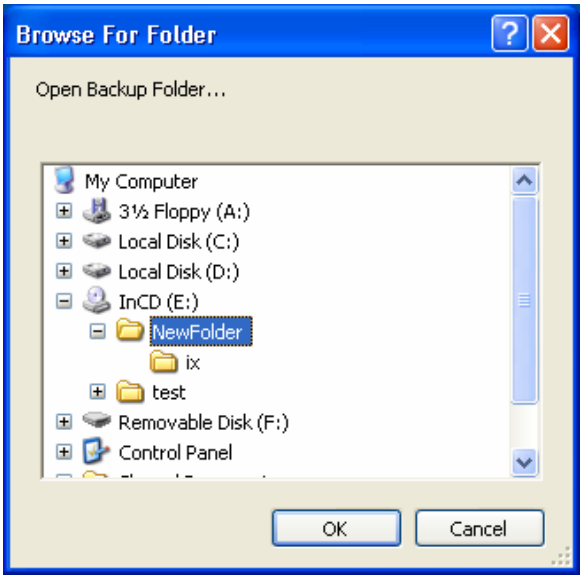




5.2.7.5 Playback

Click the “Start” button and run the “DVR’s Playback Program”.
Select a folder (subfolder) to see saved data.

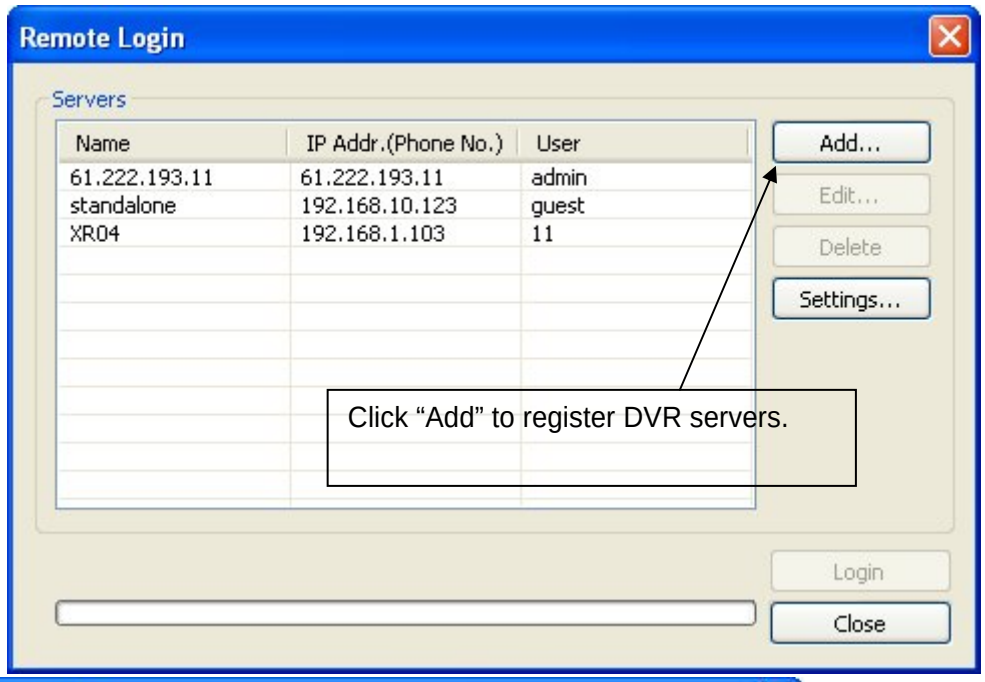




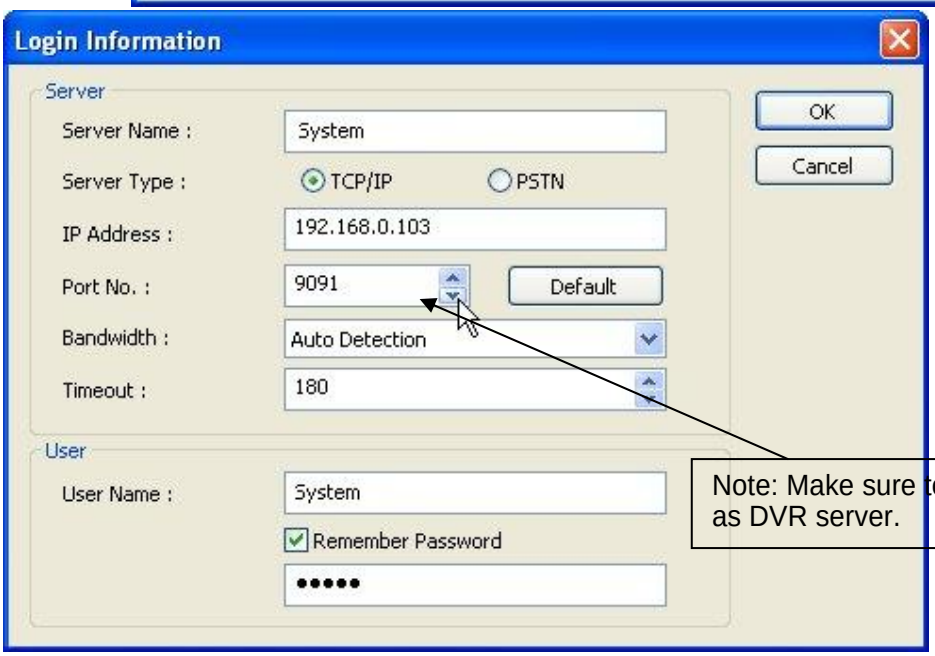
CHAPTER 6
Remote Monitoring System (Client)

6.1 Program Execution

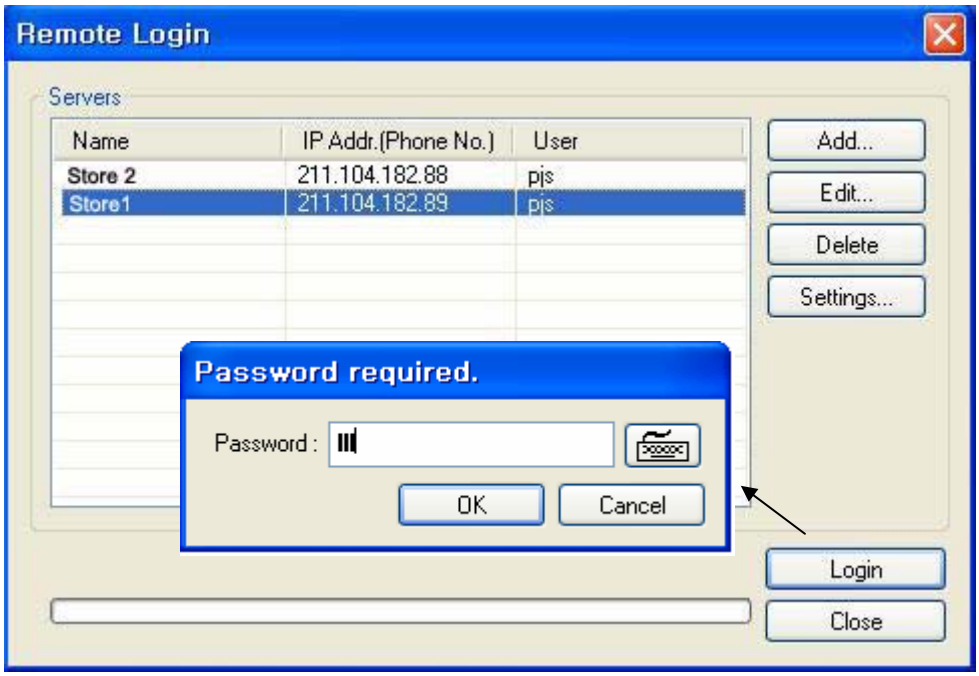
Double-click on the “DVR Client” icon on the desktop to execute Remote Monitoring System (Client).



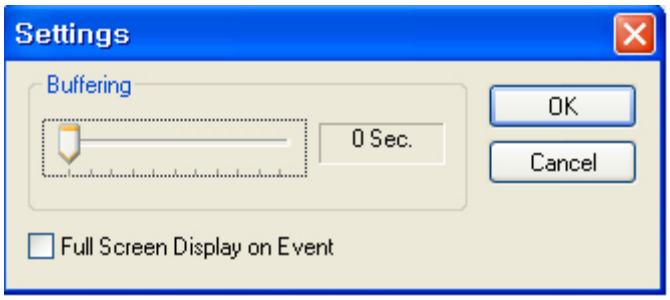
Click “Add” to register DVR servers.



Note: Make sure to put the same Port No. as DVR server.



There can be more than one DVR server registered. Select one from "Servers", click on "Login" and type in password to log in.
* Edit: Login info. changes can be made here.
* Delete: Registered servers can be deleted with one click.



Full Screen Display on Event: If checked, full screen will be displayed on events.

6.2 Remote Save and Backup

The instant AVI file save of real time video can be done remotely.
Click the right mouse to start saving.
Click the right mouse to stop saving.

Remote Backup can also be done.
The same procedure is used as “DFS Backup”.

6.3 Real Time Audio

Click the right mouse and select “Enable Audio” to hear real time audio.

Note: Changing “Setup” remotely can be done if remote user is “Admin” or “Admin Mode”.

Appendix 1
POS DVR

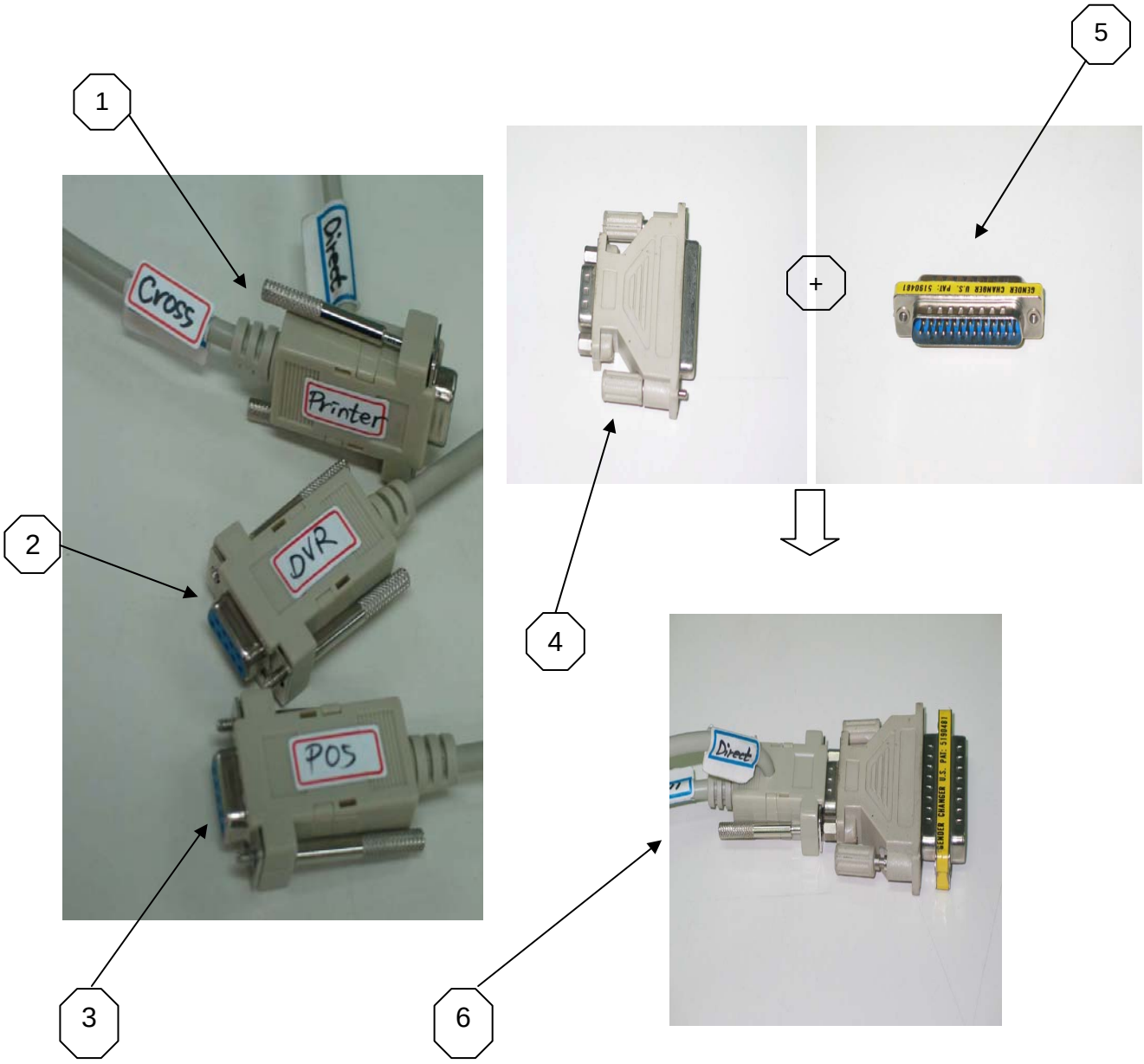
TABLE OF CONTENTS

1.1 Hardware Installation
- **1.1.1 Parts**
- **1.1.2 Installation**

1.2 Software Installation
- **1.2.1 Installation & Setup**

1.1 Hardware Installation

1.1.1. Parts



Part Names

1.RS232 Serial Cables
(Cross & Direct)
2. RS232 Serial Cable
3. RS232 Serial Cable
4. RS232 Serial Converter
(9 pins into 25 pins)
5. Gender Changer
6. #1 + #4 + #5
7. DVR
8. POS Printer
9. Point of Sales (POS)

1.1.2 Installation

Part # 2 goes into the COM Port 1 of Part # 7.

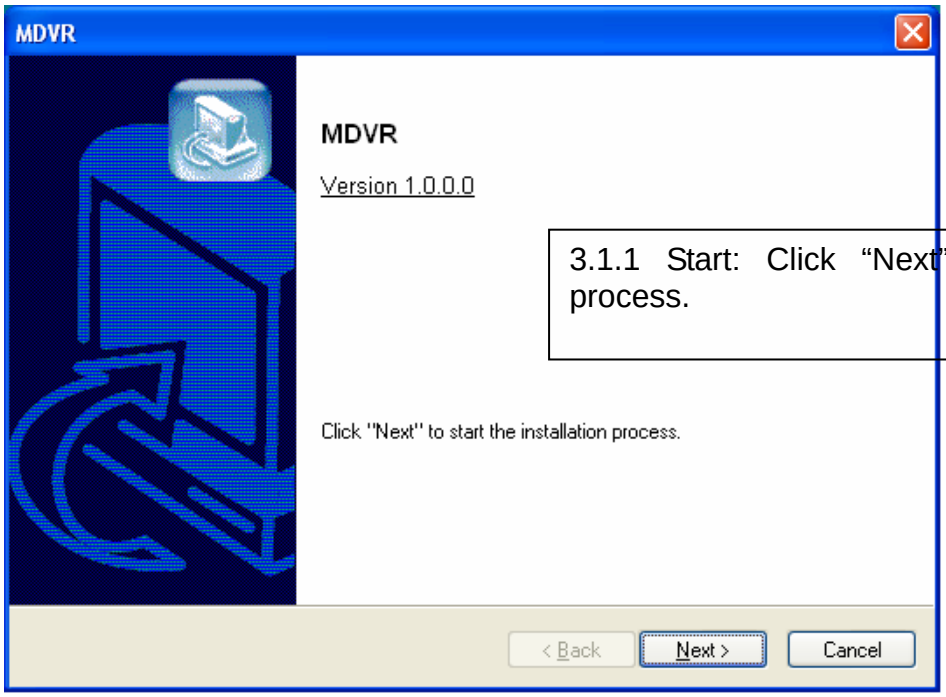
Part # 1 goes into the serial port of Part # 8.

Part # 3 goes into the serial port of Part # 9.

Appendix 3
MDVR

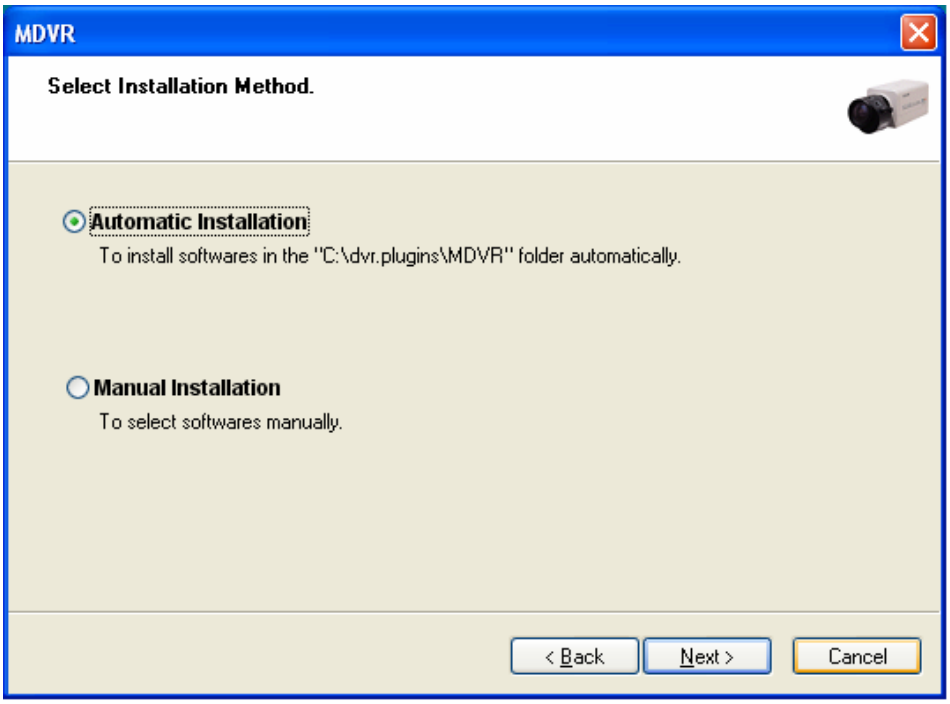
3.1 Installation

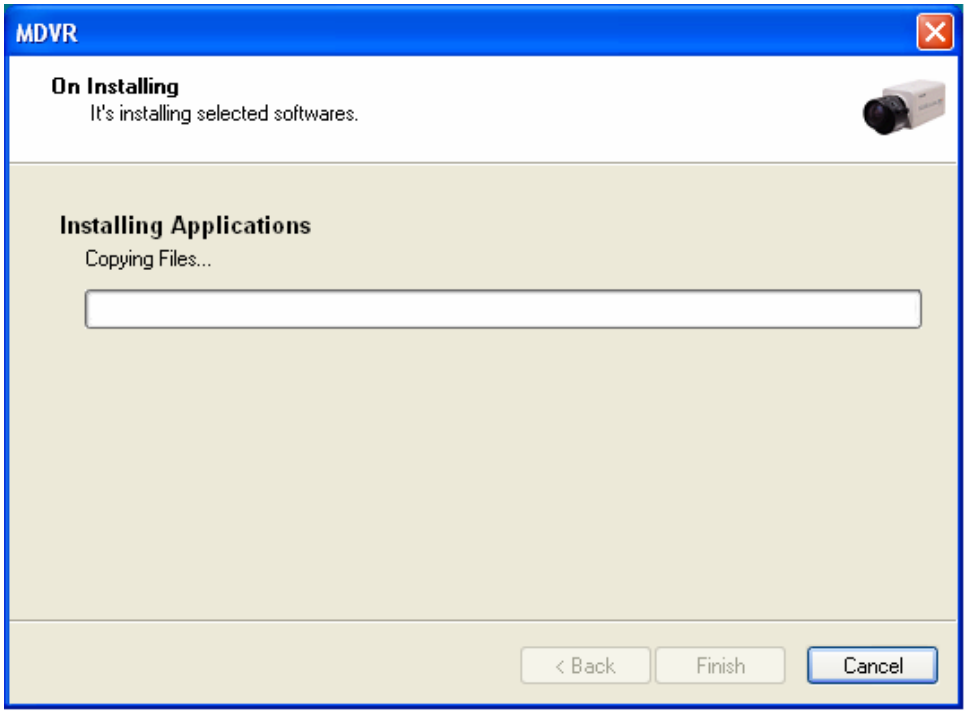
3.1.3 On Installing



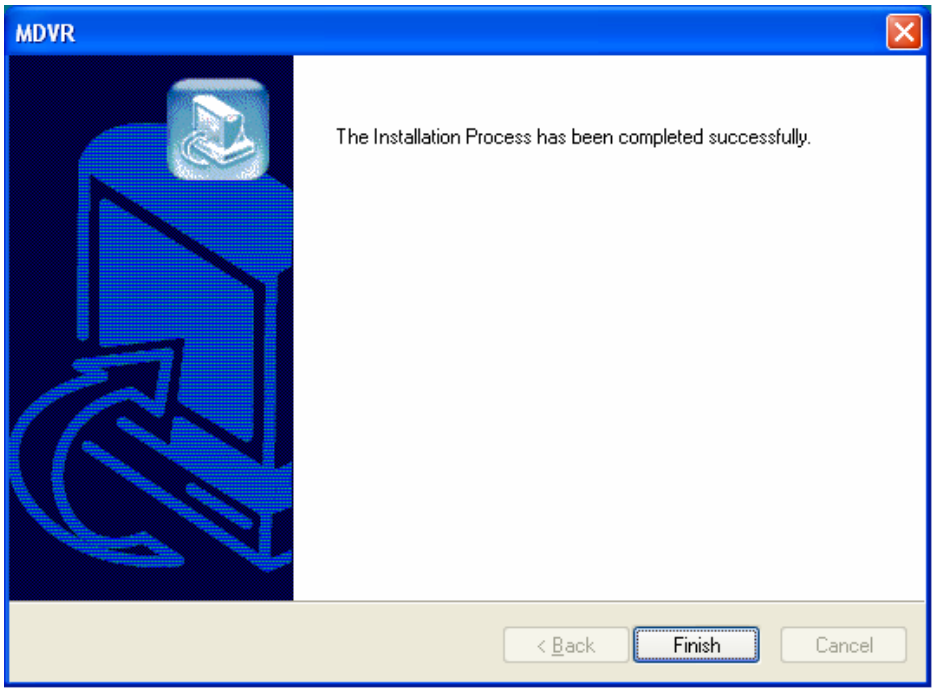
3.1.1 Start: Click “Next” to start installation process.

3.1.2 Selection of Installation Method: Select “Automatic Installation”.

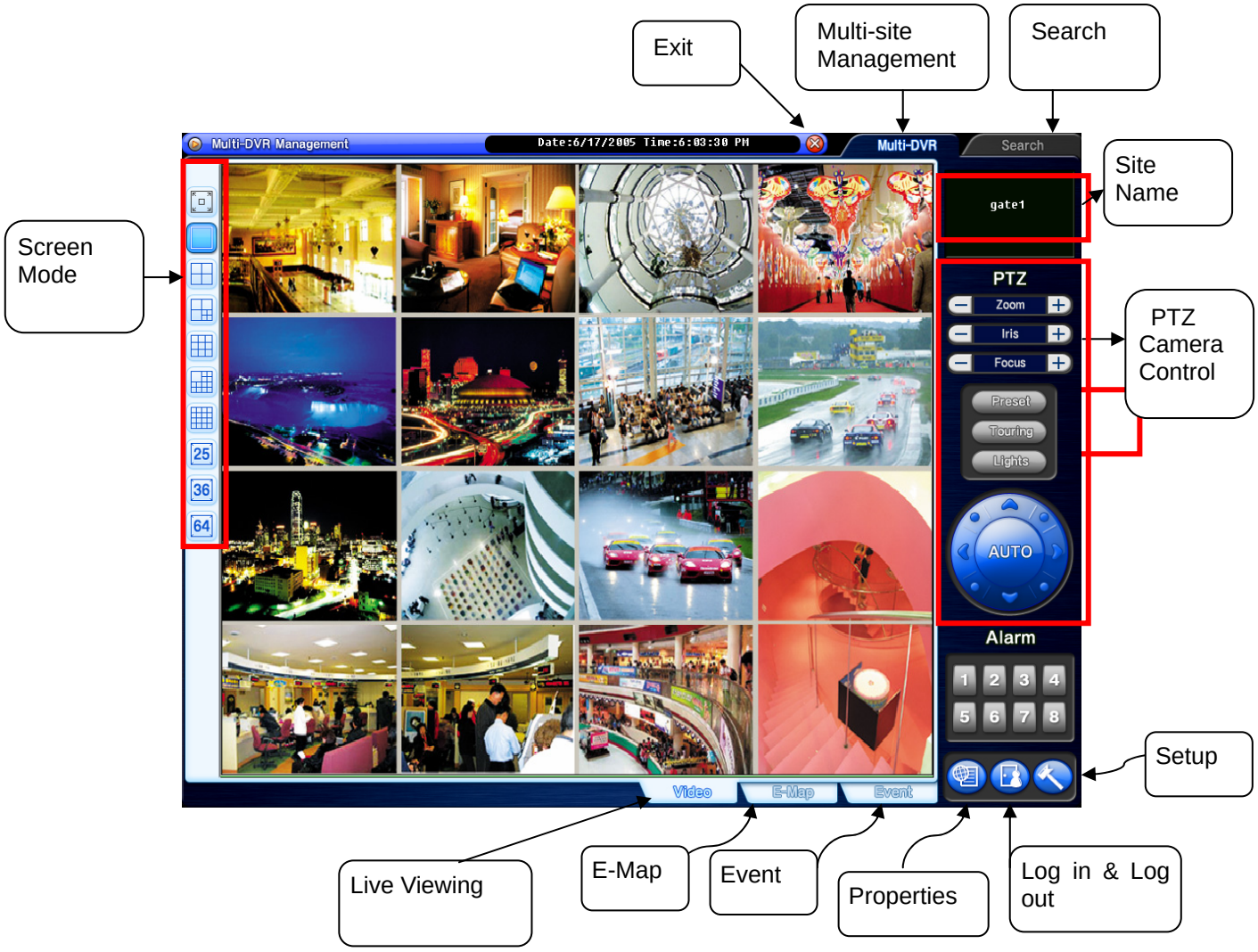




3.1.4 Finish: Click “Finish” to complete installation.



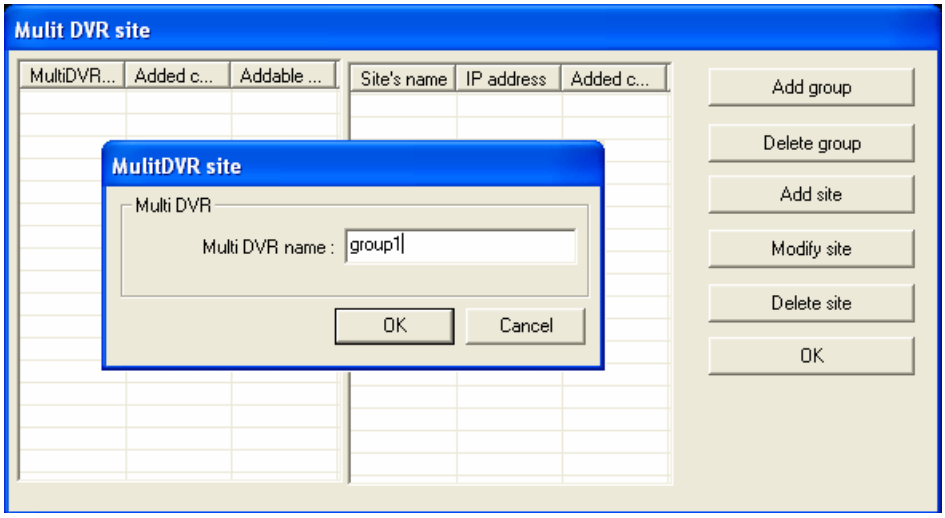
3.2 Overview


Exit
Multi-site Management
Search
Site Name
Screen Mode
PTZ Camera Control
Setup
Live Viewing
E-Map
Event
Properties
Log in & Log out
Multi-DVR Management
Date:6/17/2005 Time:6:03:30 PM
Multi-DVR
Search
gate1
PTZ
Zoom
Iris
Focus
Preset
Touring
Lights
AUTO
Alarm
1 2 3 4
5 6 7 8
25
36
64
Video
E-Map
Event

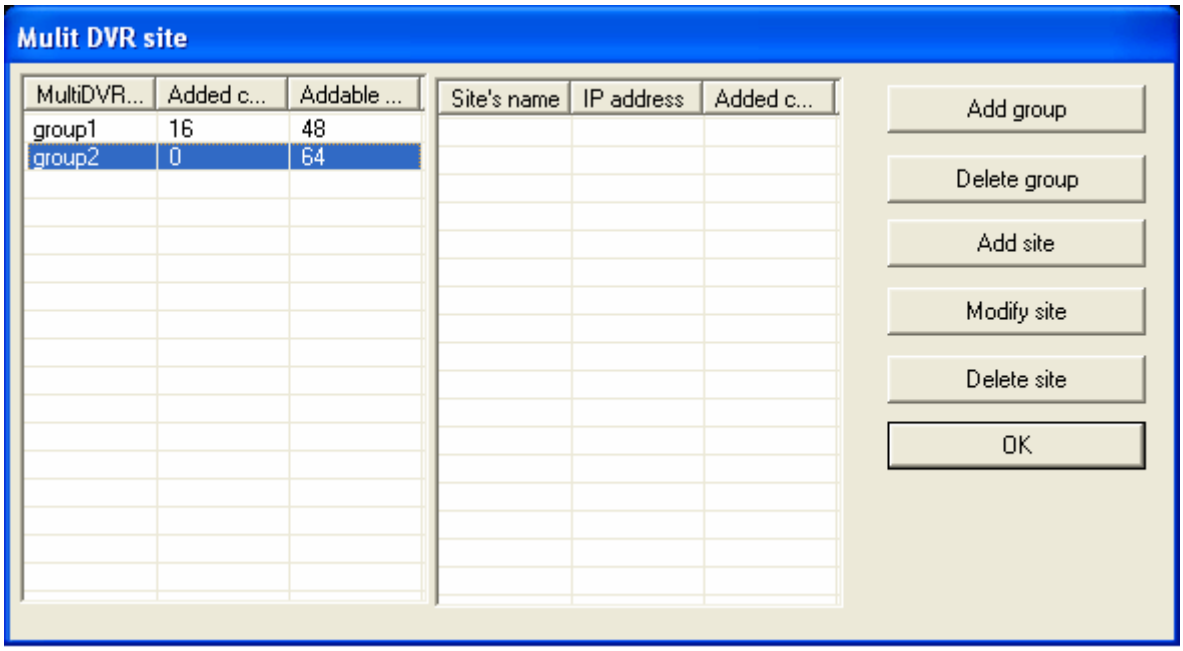
3.3 Execution

3.3.1 Properties.

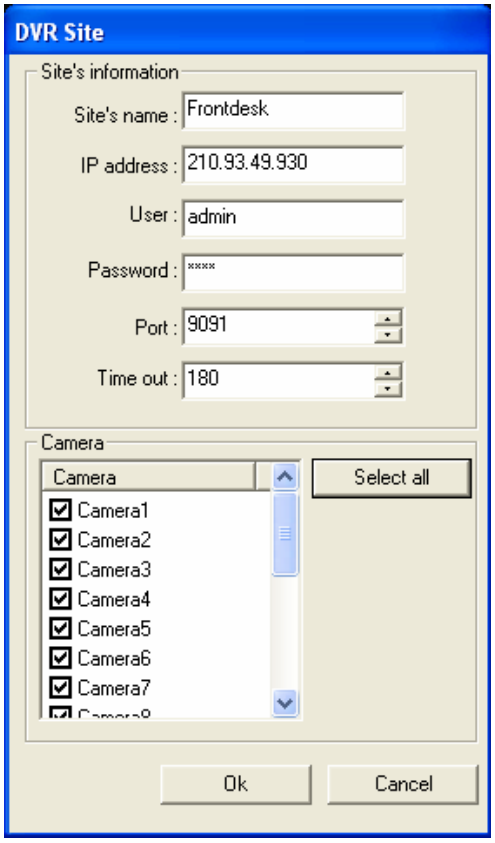
Click on the “Properties” button to register group and site.



Registration Steps:
Click “Add group” to make group. One group can have up to 64 sites (cameras).

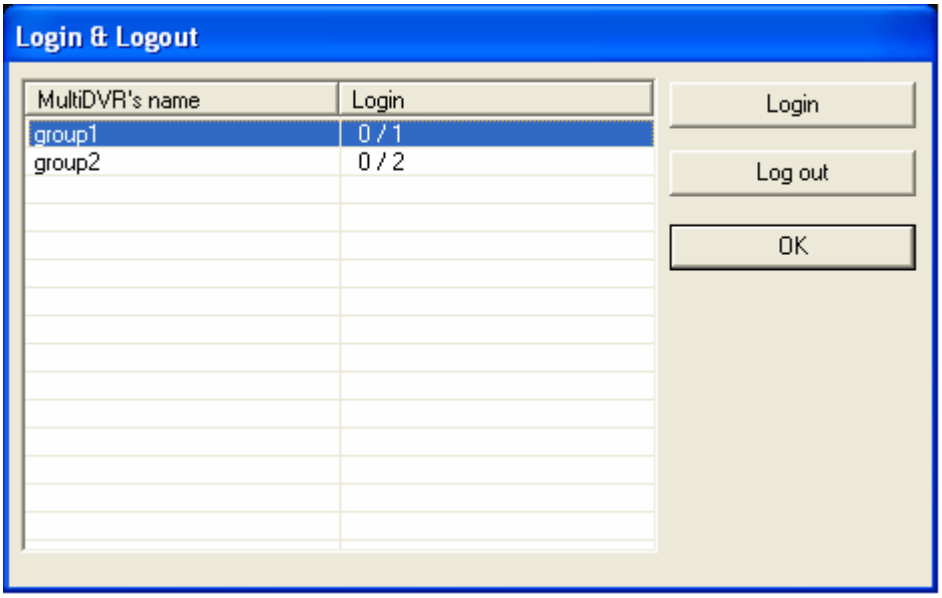


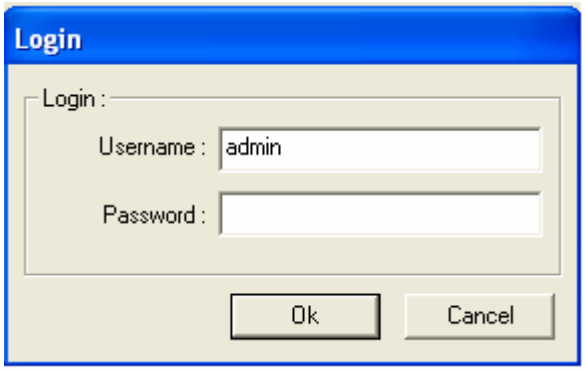
2. After making all groups, select a group to register sites.
   Click on the “Add site” button.
3. Type in all the required information as below. Make sure to put in the same user and password used on DVR.
4. Repeat the above steps to register more sites.



3.3.2 Log in & Log out

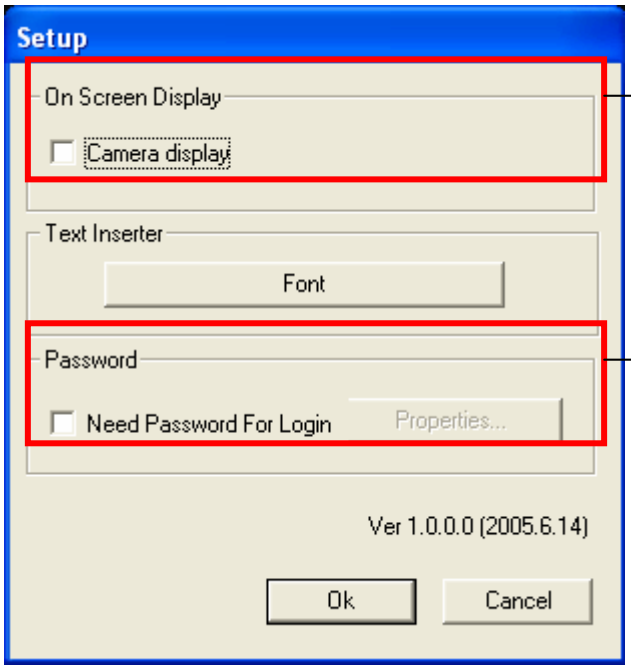
Click on the “Log in & out” button to log in.





3.3.3 Setup

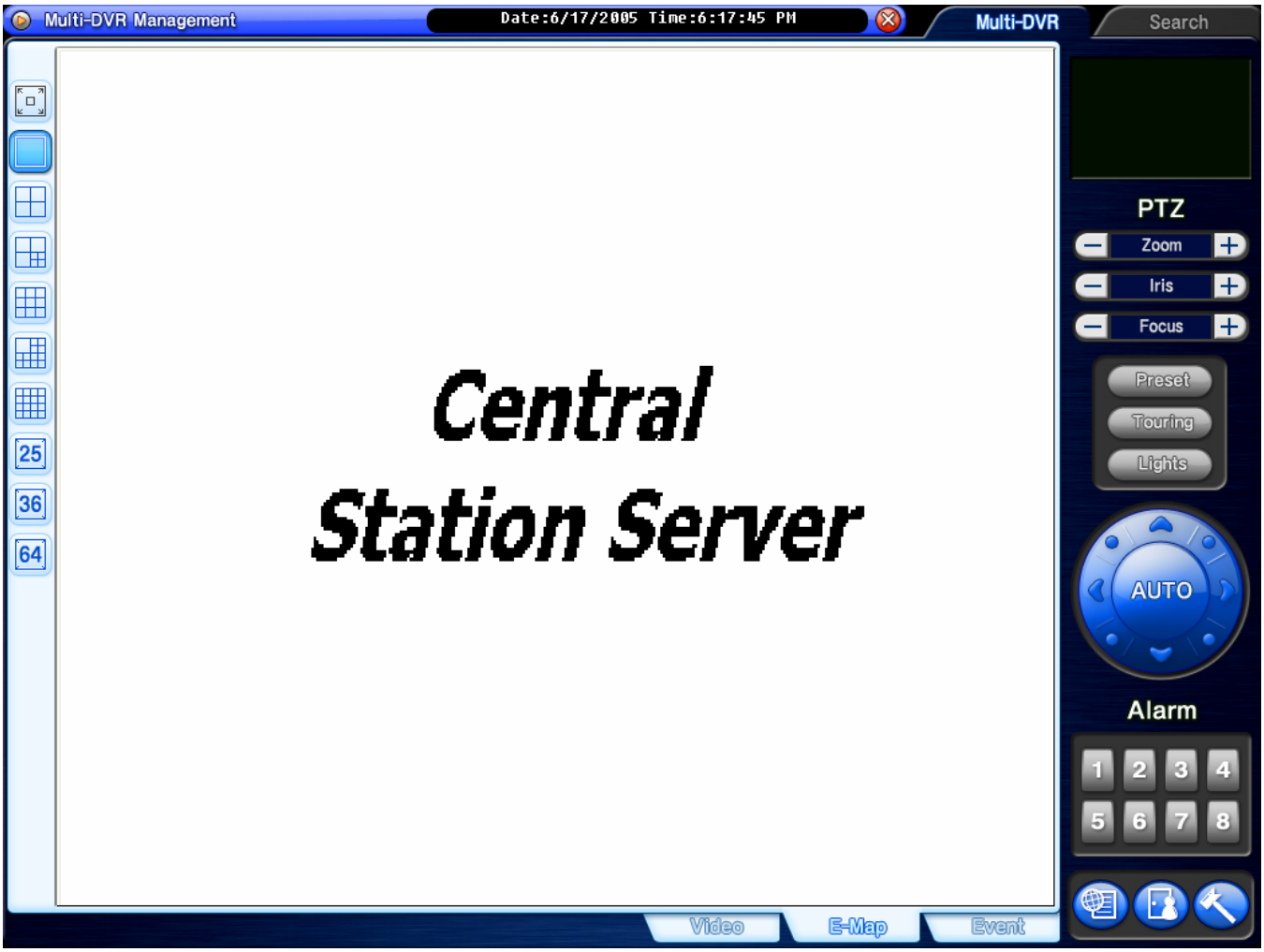
Click on the “Setup” button to use different opions.



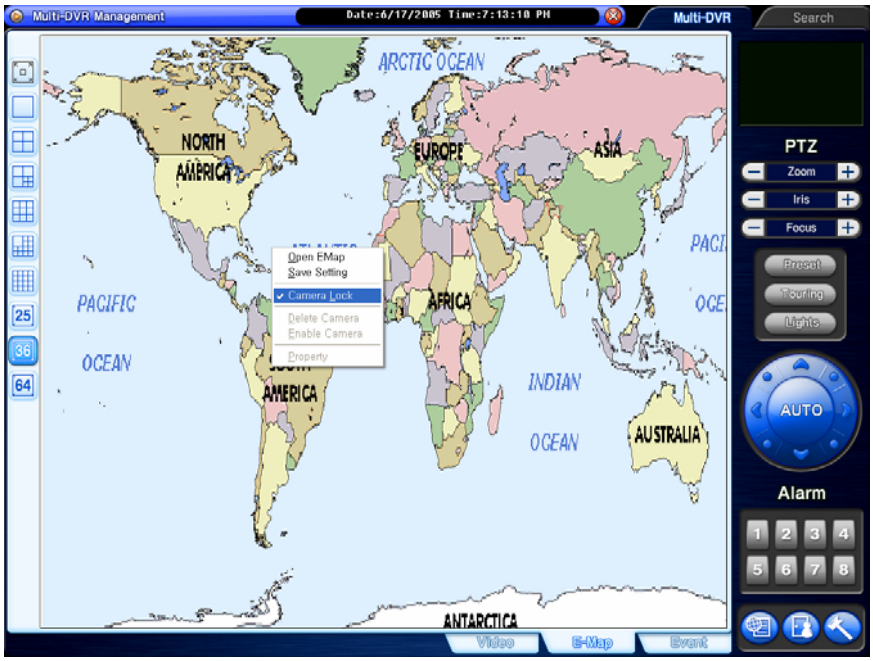
By checking the box, camera name, status, and POS text will be displayed on camera picture.

By checking the box, MDVR user and password will be asked in the event of the execution of MDVR.

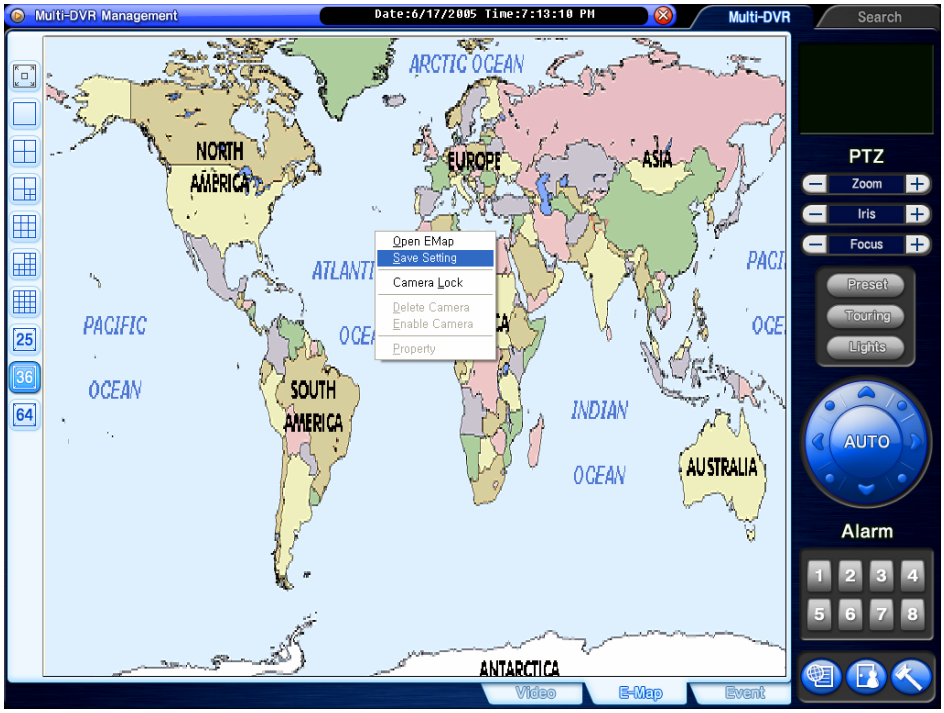
3.4 E-Map



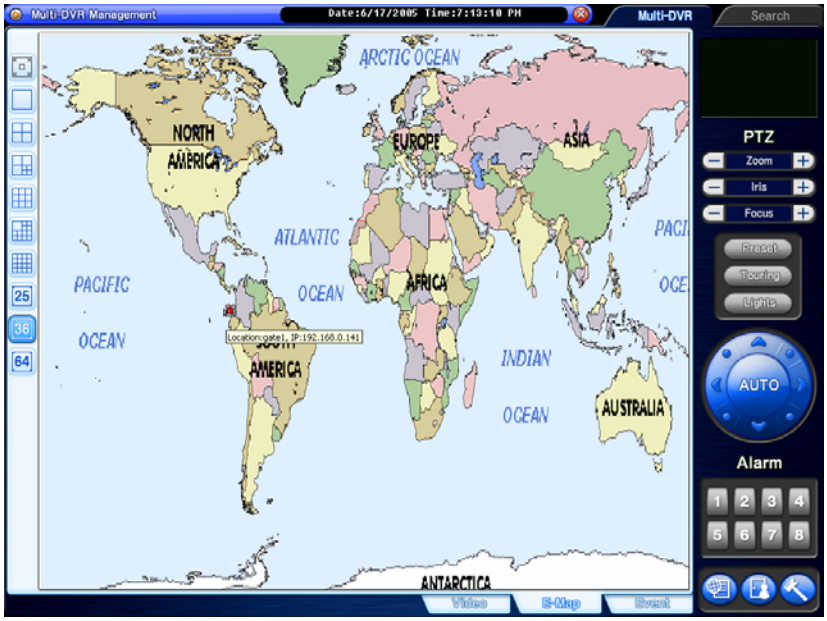
Click on the “E-Map” button to configure E-Map. To create an E-Map image, click on the right mouse and select “Open E-Map”. Only BMP file can be in use.



Click on the right mouse and select “Camera Lock” to be able to position DVRs at desired locations.

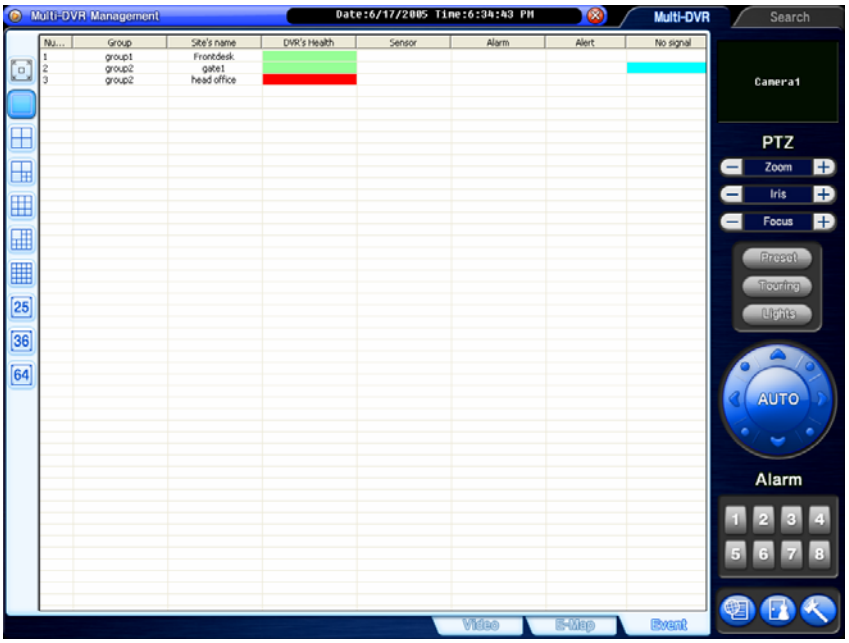


Click on the right mouse and select “Save Setting” to save image and camera locations.



After configuration, selected E-Map image and all DVR sites at selected locations can be viewed. To visit DVR site using E-Map, simply double-click on camera-shaped icon. Any DVR (camera-shaped icon) blinking in red and blue has event occurred.

3.5 Event



"Event" displays all the events coming in from registered DVRs. Select a site and click on the right mouse to connect.

3.6 Search

Search Steps:
1. Select date from the calendar.
2. Select time from the time bar.

3.6.1 Save

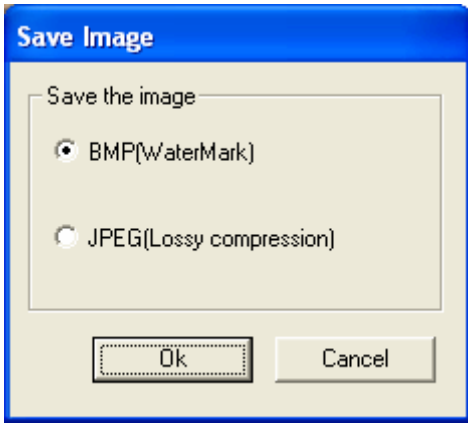
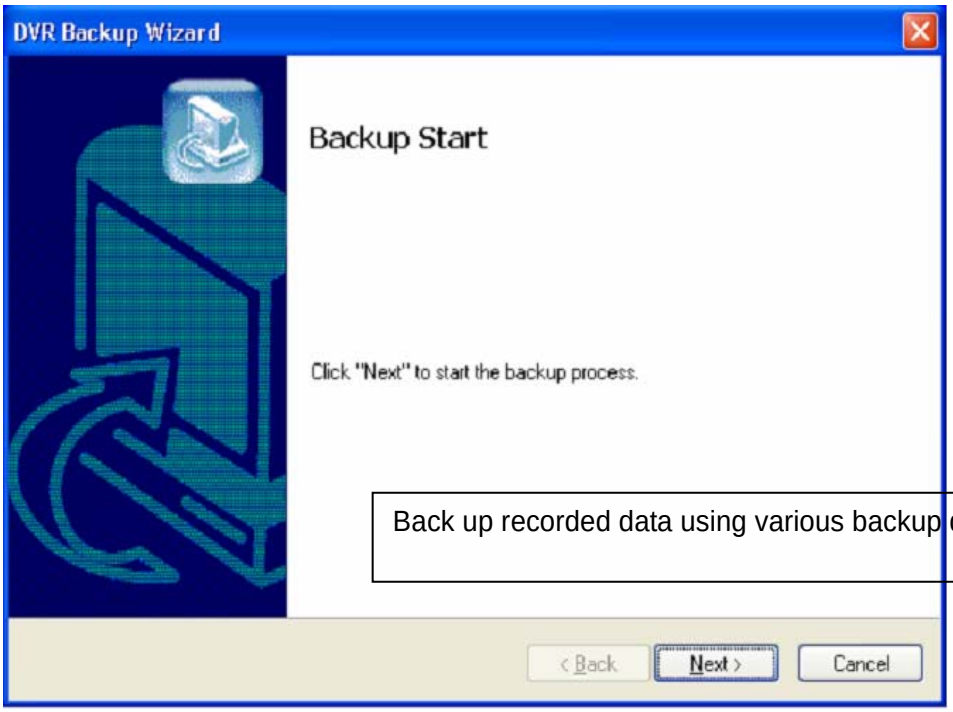
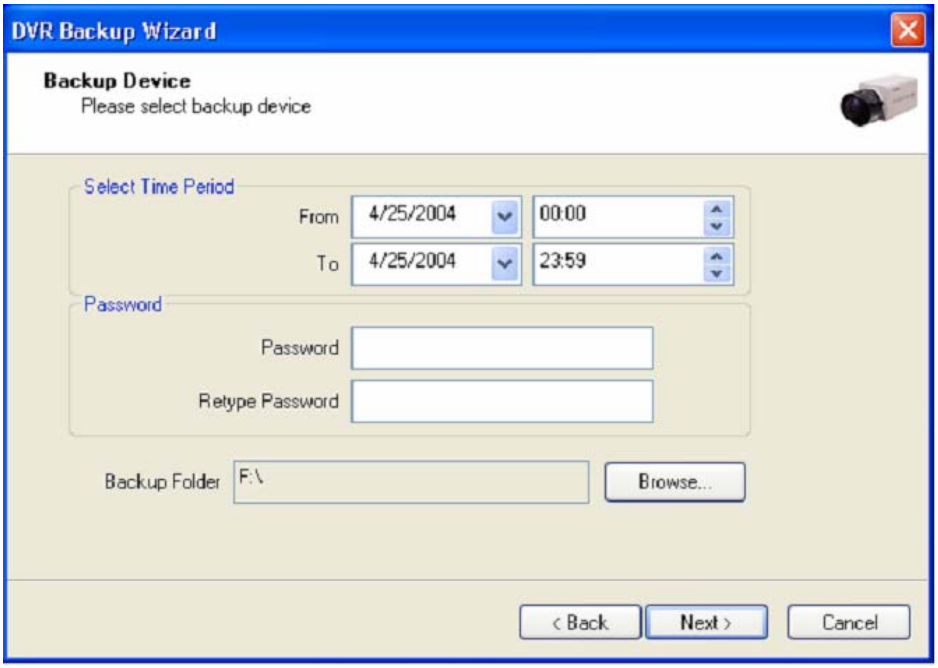


Image can be saved either in BMP File or in JPEG File

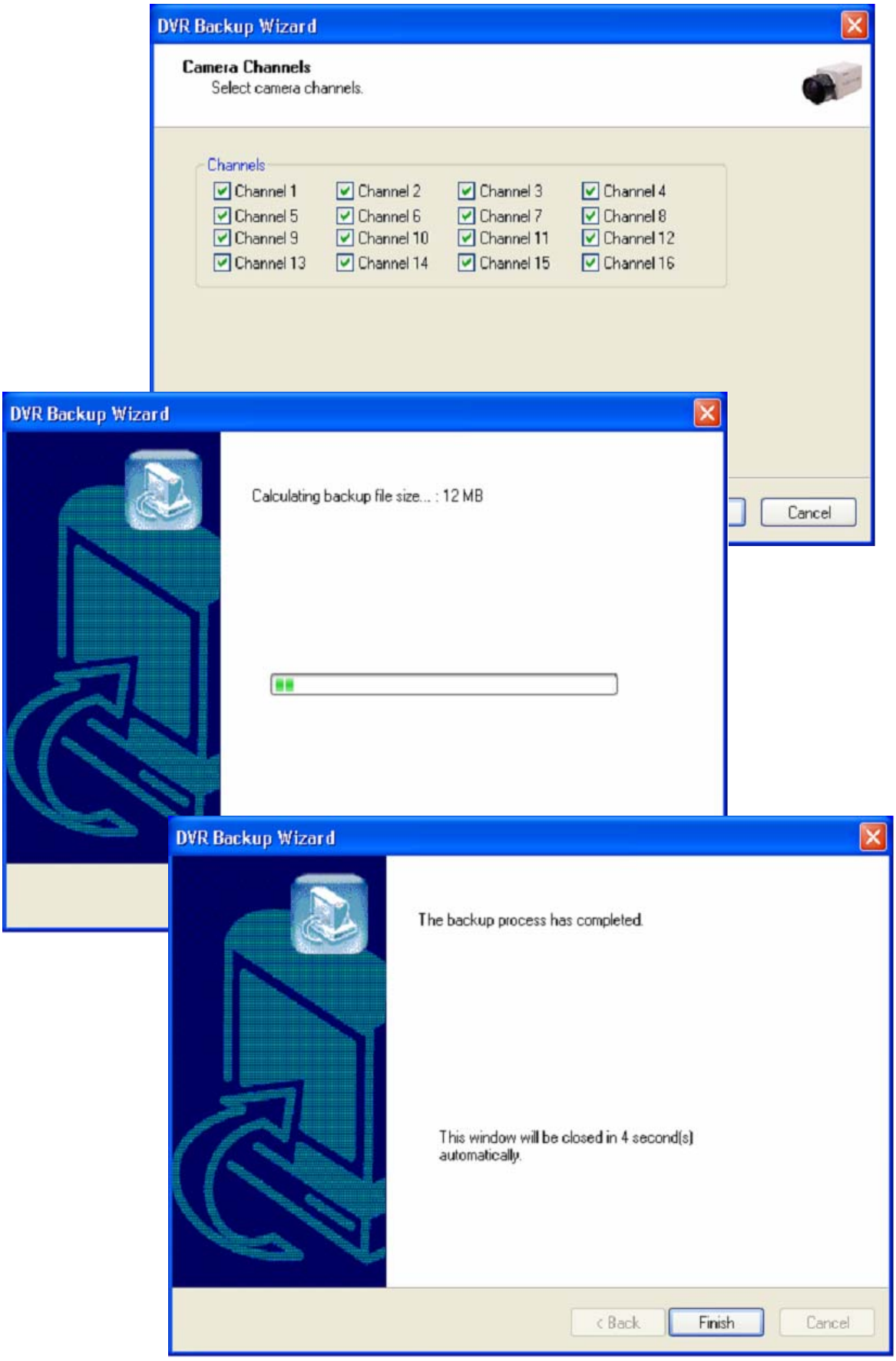
3.6.2 Backup



Back up recorded data using various backup devices.



If password is set, viewing backup data will be possible only when it is typed in.


DVR Backup Wizard
Camera Channels
Select camera channels.
Channels
Channel 1
Channel 2
Channel 3
Channel 4
Channel 5
Channel 6
Channel 7
Channel 8
Channel 9
Channel 10
Channel 11
Channel 12
Channel 13
Channel 14
Channel 15
Channel 16
Cancel
DVR Backup Wizard
Calculating backup file size... : 12 MB
DVR Backup Wizard
The backup process has completed.
This window will be closed in 4 second(s) automatically.
< Back
Finish
Cancel